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STATE OF INDIANA

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INDIANA UTILITY REGULATORY COMMISSION

INDIANA UTILITY
REGULATORY COMMISSION

IN THE MATTER OF THE PETITION OF)
SOUTH HAVEN SEWER WORKS, INC.,)
FOR APPROVAL OF A NEW SCHEDULE) CAUSE NO. 43310
OF RATES AND CHARGES FOR SEWAGE)
DISPOSAL SERVICE IN RURAL AREAS)
OF PORTER COUNTY)

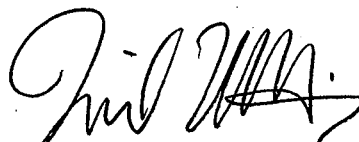
SUBMISSION OF DIRECT TESTIMONY AND EXHIBITS

South Haven Sewer Works, Inc. ("South Haven"), by counsel, respectfully files with the Indiana Utility Regulatory Commission its Submission of Direct Testimony and Exhibits in this Cause. South Haven's direct testimony includes the Direct Testimony of Edward L. Beatty. South Haven's exhibits include Exhibits ELB-1 (Schedules 1 through 12, inclusive), ELB-2 (Schedules 1 through 17, inclusive), ELB-3, ELB-4 and ELB-5, all as referenced in the Direct Testimony of Edward L. Beatty.

Respectfully submitted,

BINGHAM MCHALE LLP
2700 Market Tower
10 West Market Street
Indianapolis, Indiana 46204
Telephone: (317) 635-8900
Facsimile: (317) 236-9907

By:

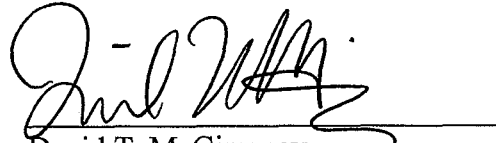


David T. McGimpsey [21015-49]

Attorney for Petitioner, South Haven Sewer
Works, Inc.

CERTIFICATE OF SERVICE

I certify that I have served a copy of the foregoing upon the Office of the Utility Consumer Counselor, Room N501, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46204, by first-class United States mail, postage prepaid, or by hand delivery, on the 28th day of June, 2007.


David T. McGimpsey

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DIRECT TESTIMONY OF
EDWARD L. BEATTY

BACKGROUND

- 1 Q. Please state your name, business address and occupation?
2
3 A. My name is Edward L. Beatty, my business address is 816 N. 360 W. Valparaiso,
4 Indiana 46385-7912, and I am the Chief Financial Officer and Secretary of South
5 Haven Sewer Works, Inc. ("South Haven").
6
7 Q. Would you describe your educational and business background?
8
9 A. I attended Xavier University in Cincinnati, Ohio and St. Joseph College in
10 Rensselaer, Indiana and received a Bachelor of Science Degree in Business
11 Administration with a concentration in Accounting from St. Joseph College's East
12 Chicago, Indiana Campus in 1969. Prior to and following my graduation, Scot
13 Lad Foods, Inc. (SLF) of Chicago and Lansing, Illinois employed me. During my
14 22 years with SLF, I was the Chief Financial Officer of its Non-foods Subsidiary
15 for six years and Chief Financial Officer of its Chicago Grocery Division for
16 seven years. I was formerly a Licensed Real Estate Broker in the State of Indiana,
17 License Number PB59000619.
18
19 While employed at SLF, I was involved in the valuation of the purchase of certain
20 assets from a number of entities. I have also been involved in the valuation and
21 purchase of a company where SLF stock was exchanged for the assets.
22
23 As the Chief Financial Officer of SLF's Chicago Grocery and Non-Foods
24 Divisions, Reliable Development, South Haven Water Works and South Haven, I

1 have attended a number of seminars and workshops, presented by groups such as
2 the American Water Works Association, National Association of Regulatory
3 Utility Commissioners, National Association of Realtors and the American
4 Management Association, related to accounting, taxes, real estate issues, and rate
5 making issues including Ibbotson Associates Cost of Capital Workshop March,
6 1997, Financial Management Seminar October, 1995 and the National
7 Association of Regulatory Utility Commissioner's Western Utility Rate Seminar
8 April, 1989 and the Indiana Institute for New Business Ventures, Inc. Family
9 Business Conference November, 1990.

10
11 From 1981 to 1987, I was a business broker and consultant specializing in the
12 purchase and selling of businesses.

13
14 In 1987, I became the Chief Financial Officer and Secretary of Reliable
15 Development Corp. and South Haven Water Works, Inc., of which South Haven
16 Sewer Works was an operating unit. On October 1, 1988, I was appointed to the
17 Board of Directors of Reliable Development Corp. and South Haven Water
18 Works, Inc. When South Haven Sewer Works, Inc. was formed in 1994, I was
19 appointed its Chief Financial Officer and elected to its Board of Directors.

20
21 I am a member of the American Water Works Association, Society of Rate
22 Analysts, and the Indiana Association of Sewer Companies and a past member of
23 the Northwest Indiana Board of Realtors and the National Association of
24 Accountants. In addition, I am honored to say I am member of International
25 Lions Club. I have been a member of the South Haven and Highland, Indiana
26 Clubs, since 1987. I am currently a member of the Highland, Indiana Lions Club
27 and continue to support the South Haven, Indiana Lions Club projects. I was
28 encouraged to join the Lions by one of the founders of South Haven Lions Club,
29 L. Paul Saylor. Mr. Saylor was the former majority stockholder of South Haven
30 Water Works, Inc., the predecessor company to South Haven Sewer Works, Inc.
31 Mr. Saylor was a real estate developer and homebuilder. However, he was not a
32 typical developer and homebuilder, who created a water and sewer utility and
33 walked away from it. He remained the owner of the water and sewer utility long
34 after the development was completed. The International Lions Club is the largest
35 service organization in the world, which serves those who are in need. The Lions
36 motto is "We Serve."

37
38 **Q. Have you testified before this Commission before?**

39
40 **A.** Yes, I have.

41
42 **Q. Describe your responsibilities as Chief Financial Officer for South Haven**

43
44 **A.** I am responsible for all internal and external financial reporting. This involves
45 the direct supervision of the maintenance of the books and records including the
46 general ledger and property records. In like manner, I am responsible for the

1 preparation of tax returns and regulatory filings. In addition, I assist the Chief
2 Executive Officer and General Manager in the preparation of the operating
3 budget. To control the costs of outside consultants, I am responsible for the
4 accounting and the cost of equity exhibits in this rate case.
5

6 **Q. Then, you have first hand knowledge of the books and records as they relate**
7 **to regulatory accounting and the rate making process?**
8

9 **A.** Yes, I do.
10

11 **Q. Does South Haven maintain its books and records in accordance with the**
12 **National Association of Regulatory Utility Commissioners' Uniform System**
13 **of Accounts?**
14

15 **A.** Yes.
16

17 **Q. Are the books and records of South Haven maintained in accordance with**
18 **generally accepted accounting principles ("GAAP")?**
19

20 **A.** Yes.
21

22 **Q. Does an outside accounting firm audit the books, records, and financial**
23 **statements?**
24

25 **A.** Yes.
26

27 **Q. Who is the outside accounting firm?**
28

29 **A.** Glenn E. Johnson, CPA, 7309 Lincolnway, Hobart, Indiana 46342
30

31 **Q. What kind of audit is it that Mr. Johnson performed?**
32

33 **A.** Mr. Johnson performed complete audits of South Haven for the years 1995
34 through the current year-end. Mr. Johnson renders an opinion as to whether the
35 Balance Sheet, Income Statement, Retained Earnings Statement and Statement of
36 Cash Flows are presented fairly in conformity with generally accepted accounting
37 principles and standards. These standards require that Mr. Johnson plan and
38 perform the audit to obtain a reasonable assurance about whether the financial
39 statements are free of material misstatement.
40

41 **Q. Were there any significant detrimental items mentioned in Mr. Johnson's**
42 **audit opinion for the year ended December 31, 2006? If so, what were they?**
43

44 **A.** Yes, in paragraph three of Mr. Johnson's opinion dated February 9, 2007 he stated
45 as follows:
46

1 As disclosed in Footnote 4 to the financial statements, the
2 Company was in default of the loan covenant in it's loan
3 agreement with Centier Bank and National Bank for Cooperatives
4 (CoBank) requiring a Debt Service Coverage Ratio greater than
5 1.25 to 1.00 for the year 2003, 2002, and 2001. The Company had
6 complied with the terms of the loan agreement for the year ended
7 December 31, 2006, 2005 and 2004. The Management's plan
8 concerning these matters is described in Footnote 4. The financial
9 statements do not include any adjustments that might result from
10 the uncertainty of any future rate Causes.

11
12 **Q. What is the purpose of your testimony in this Cause?**

13
14 **A.** My testimony will support an increase in Petitioner's rates and charges. I will
15 testify in regard to South Haven's financial statements, the actual and pro-forma
16 operating results and the cost of equity. I am responsible for Exhibit ELB-1,
17 Schedules 1 through 12, ELB-2, Schedules 1 through 17, ELB-3, ELB-4 and
18 ELB-5. Exhibit ELB-1 supports my accounting testimony, and Exhibit ELB-2
19 supports my cost of capital and fair rate of return testimony. ELB-3 is the bank
20 commitment letters for South Haven's Commission-approved loans in Cause Nos.
21 42822 and 42985. Exhibit ELB-4 and -5 are affidavits of South Haven's CPA,
22 Glenn Johnson.

23
24 **Q. Did you prepare, or supervise the preparation of Petitioner's Exhibits ELB-**
25 **1, ELB-2, ELB-3, ELB-4 and ELB-5?**

26
27 **A.** Yes.

28
29 **Q. Were the numbers or figures used in these exhibits taken from the books and**
30 **records of South Haven?**

31
32 **A.** Yes.

33
34 **Q. What have you done to prepare yourself to testify in this Cause?**

35
36 **A.** As noted earlier I have supervised and have been very much involved in the
37 preparation of the financial statements. We have had numerous discussions with
38 Mr. David Saylor and Mr. Michael Jonas regarding the operations of the sewer
39 wastewater facility. However, these discussions were not limited to just Mr.
40 Saylor and Mr. Jonas. Whenever, it was essential I had discussions with other
41 operational personnel.

42
43 In the past, I have had discussions with Mr. John F. Guastella of Guastella
44 Associates regarding accounting and cost of equity matters, and Mr. Mark
45 Michael of Standard and Poor's regarding certain market data related to cost of
46 equity matters. Also in the past, I have spoken with Messrs. Roger G. Ibbotson,

1 Ph.D., and Paul Kaplan, Ph.D., of Ibbotson Associates, who currently is employed
2 by Morningstar, Inc.; Wilber G. Lewellen, Ph.D., of Purdue University; and John
3 A. Boquist, Ph.D. of Indiana University about cost of equity matters in Indiana.
4 Also, I have spoken with the officers from CoBank and now Centier Bank about
5 cost of equity matters in Indiana as well.
6

7 Since I am familiar with the financial aspects of the operations, the object of the
8 discussions with Mr. Saylor, Mr. Jonas, and other operating personnel was to
9 become informed about the day-to-day physical operations of the facility. In
10 regard to this Cause, I was particularly interested in the test year and the pro-
11 forma year. The discussions were designed to determine for adjustment and
12 normalization purposes any anticipated future events, which may influence the
13 operations.
14

15 RATE BASE

16
17 **Q. In your rate of return and cost of capital testimony you make reference to a**
18 **“rate base.” What do you mean by “rate base”?**
19

20 **A.** The most common rate base methodologies or measures of value are primarily the
21 Original Cost Rate Base method and the Fair Value Rate Base Method, which
22 were derived from the “fair value doctrine” as set forth by the courts and the
23 Indiana Statute IC 8-1-2-6. The “fair value doctrine” depends upon no formula,
24 but upon the reasonableness of the end result. This was made clear in Federal
25 Power Comm’n v. Hope Natural Gas Co., 320 U.S. 591, 602, 64 S.Ct. 281, 287-
26 88 (1944). The Court said:
27

28 “Under the statutory standard of ‘just and reasonable’ it is the result
29 reached not the method employed which is controlling. It is not theory but
30 the impact of the rate order, which counts. The fact that the method
31 employed to reach that result may contain infirmities is not then important.
32 [The order] is the product of expert judgment which carries a presumption
33 of validity. (citations omitted)”
34

35 IC 8-1-2-6 states that the “commission shall value all property of every public
36 utility actually used and useful for the convenience of the public at its fair value,
37 giving such consideration as it deems appropriate in each case to all bases of
38 valuation, which may be presented....” As explained in Indianapolis Water Co. v.
39 Pub. Serv. Comm’n, 484 N.E.2d 635, 639 (Ind. Ct. App. 1985), the “fair value”
40 referred to in the statute is the figure that constitutes the rate base upon which a
41 utility should be allowed to earn a return.
42

43 In Indiana, the property included in the “rate base” may be valued by one of two
44 standard methods: (1) The “original cost” method, which is based on book value,
45 “the cost of an asset when first devoted to public service”, less accumulated
46 depreciation or (2) the “fair value” method, which takes into account the fair

1 value of the utility plant that is presented through "reproduction costs new"
2 studies utilizing price indices or other measurements of an investment's current
3 value. The Indiana statutory scheme authorizes the use of either valuation
4 method. Id. at 638-639.

5
6 "Fair value" as used in IC 8-1-2-6 in reference to the Commission's duty to value
7 the used and useful property of the utility does not solely mean the reproduction
8 cost new method. Id. at 639. "Fair Value [as used in IC 8-1-2-6] is a conclusion
9 or final figure, drawn from all the various 'values' or factors to be weighed by the
10 Commission." Id. (quoting Public Serv. Comm'n v. City of Indianapolis, 131
11 N.E.2d 308, 318 (Ind. 1956)).

12
13 **Q. How does the "original cost rate base" differ from the "fair value rate base"?**

14
15 **A.** The Original Cost Rate Base Method primarily values the Rate Base at its "First"
16 Cost. It is the amount actually paid for installing the original plant and equipment
17 plus additions, when first devoted to public service, less the accumulated
18 accounting depreciation, recorded in the books and records of the company. The
19 original cost and accumulated accounting depreciation is sometimes referred to as
20 the "net book value," which for accounting purposes is an asset or group of assets
21 that appear in the books and records of a company, as distinguished from its
22 market value.

23
24 The Fair Value Rate Base Method is a composite of depreciated original cost and
25 reproduction cost. However, it has been the courts giving meaning to the statute,
26 which uses "fair value," that has set forth the "Fair Value Doctrine." It is
27 important to remember that, "under the statutory standard of 'just and reasonable'
28 it is the result reached not the method employed, which is controlling. It is not
29 theory but the impact of the rate order which counts." Hope, 320 U.S. at 602, 64
30 S.Ct. at 287.

31
32 **Q. What other valuation methods are used in Indiana to arrive at fair value rate**
33 **base?**

34
35 **A.** As I stated earlier one valuation method is the Reproduction Cost New Less
36 Depreciation (RCNLD). It is sometimes called the Trended Original Cost or
37 Price Level Accounting method. The trending method provides a cost and time
38 saving substitute for the more involved inventory pricing method of determining
39 the valuation and employs various index numbers of prices to convert the original
40 cost to equivalent value as expressed in current dollars.

41
42 **Q. Was a RCNLD method used in this case?**

43
44 **A.** No.

45
46 **Q. What method was used to value Rate Base in this Cause?**

1
2 A. I used "Original Cost" method in this Cause.

3
4 Q. What is the Rate Base using Original Cost in this Cause?

5
6 A. It is \$ 8,553,291. (See Exhibit ELB-1, Schedule 10, line 24).
7

8
9 **COST OF CAPITAL AND FAIR RATE OF RETURN**

10
11 Q. What is the purpose of this portion of your testimony in this proceeding?

12
13 A. It is my objective to present evidence with respect to the fair rate of return that
14 South Haven should be allowed to earn on its investment in providing wastewater
15 services in rural Porter County, Indiana. In addition, it is also my objective to
16 reach some rational and reasonable conclusion as to the proper level of such
17 return. I also present evidence on the cost of capital, including the cost of debt
18 and the cost of equity capital in arriving at an overall, or weighted, cost of capital.
19

20 Upon working towards that end, I have obtained and analyzed information
21 relating to other utilities and to the economy and financial markets in general.
22 That information is by and large set forth and the sources of that information are
23 contained in attached **Exhibit ELB-2, Schedules 1 through 17**. I have also
24 relied upon my knowledge and business experience acquired over the last 38
25 years.
26

27 Q. From what perspective do you approach the question concerning fair rate of
28 return?
29

30 A. When one refers to the determination of a fair rate of return for utility rate setting
31 purposes, two U.S. Supreme Court decisions in utility rate proceedings have
32 formed the basis for most utility rate of return decisions today. Although the
33 cases are not recent, the principles that are enunciated in these influential
34 decisions are as important and valid today, as they were when the original
35 decisions were rendered. The two cases of which we speak are the Bluefield
36 Water Works v. Public Serv. Comm'n, 262 U.S. 679, 43 S.Ct. 675, 67 L.Ed. 1176
37 (1923) and Hope cases.
38

39 Through the well-recognized and long established principles set forth in these
40 Court opinions, the courts and regulators have recognized two fundamental
41 principles of necessity in setting the allowable return for regulated utilities. They
42 are that the return must be sufficient to enable the utility to at least:
43

- 44 1. Maintain its credit, and
45 2. Attract capital.
46

1 Both of these principles or standards are geared to insure that the regulated
2 investor-owned utilities are assured an adequate degree of financial integrity. In
3 return for this protection, the utility also has some responsibilities:
4

- 5 1. an obligation to provide adequate service to the public,
- 6 2. to prudently invest its capital, and
- 7 3. to effectively and efficiently manage its operations.
- 8

9 In any utility regulatory matter, the central issue is the balancing of interests of
10 the ratepayers or consumers of the utility with the interest of the investors, who
11 have supplied the capital to the utility that is providing the service to the
12 ratepayers. The ratepayers' desire for reasonable rates must be balanced with the
13 cost to the utility of providing safe, adequate and reliable service. That cost
14 includes the opportunity for shareholders to receive a reasonable yield on their
15 investments, which includes the opportunity to receive dividends. The yield for
16 shareholders should be equal to the risks the creditors and shareholders bear.
17 Moreover, the yield should be equivalent to the competitive yields that may be
18 available elsewhere in securities market on comparable alternative investment
19 opportunities.
20

21 **Q. Is it possible to properly identify competitive yield standards in practice?**
22

23 **A.** Yes. It is possible to identify competitive yield standards in practice because of
24 the vast amount of data that is available from the American capital marketplace.
25 The market is a highly developed system, and it enjoys a broad participation by
26 the investing community. The American capital marketplace functions as a
27 device for the allocation of resources in accordance with their most productive
28 uses. The prices, costs, yield, and returns that can be observed in that
29 environment provide very useful evidence about the investor's requirements and
30 the investor's alternatives.
31

32 **Q. Are there key elements that should be used when examining competitive**
33 **yield rates?**
34

35 **A.** Yes. One key consideration is recognizing that there are clearly many competing
36 investment alternatives available to suppliers of capital. Therefore, the proper
37 rate of return must focus on the concept of "opportunity cost," the earnings rate
38 available if the capital was employed elsewhere in an investment of similar risk.
39 It should be noted that only if the return is matched with potential "other
40 opportunities" would the regulated utility be able to continue to bid in the market
41 effectively for the resources it requires. This is given that the shareholders have
42 accepted the responsibility of providing safe, efficient and reasonably adequate
43 service.
44

45 Only if this element of cost is fully reflected in the price of the utility's services
46 will consumers or ratepayers be paying their correct share of the burden of

1 devoting scarce resources to the creation of those services. Additionally, only if
2 an adequate return is allowed will the investors who have provided the utility's
3 capital be treated equitably.
4

5 If the investors and creditors are not allowed the opportunity to earn a suitable
6 rate of return, they will not be treated fairly; and, the capital may not continue to
7 be made available. In the long run if capital does not continue to become
8 available, the ability of the utility to provide reliable quality service at a
9 reasonable cost will be handicapped. In the long run, if capital is not made
10 available to the utility, the ratepayers' and the investors' interests will be
11 adversely affected. The ratepayers will be forced to pay higher rates and the
12 stockholders' assets will be confiscated if the rates are not high enough to allow
13 the opportunity to earn a fair return, that would attract the necessary debt and
14 equity capital required to operate the utility.
15

16 **Q. How much capital have South Haven's stockholders contributed as equity**
17 **capital since the Commission approved the \$3.8 million financing of the new**
18 **plant in 1994?**
19

20 **A.** The Stockholders' Equity has increased a total of \$2,524,860 since 1994, the year
21 the Commission approved the financing of the new plant in its July 6, 1994 Order
22 issued in Cause No. 39667. Of the increase in Stockholders' Equity since 1994,
23 \$1,995,228 came from equity capital contributions from the stockholders, David
24 and Karen Saylor, and \$529,632 came from Retained Earnings. **(Please refer to**
25 **Exhibit ELB-2, Schedule 12, page 2 of 2).**
26

27 **Q. How do you propose to establish the proper standards for return on common**
28 **equity?**
29

30 **A.** By examining the returns on common equity that are available to investors from
31 other common equity investments where the level of risk encountered is
32 comparable or resembles that faced by the common equity stockholders of South
33 Haven's capital structure.
34

35 **Q. Does this approach or method conform to the concept of "Cost of Capital,"**
36 **which is often used for purposes of rate of return regulation?**
37

38 **A.** Yes. The accepted definition of Cost of Capital, in the literature publications of
39 finance, is the "minimum return" that must be earned by a firm on its investments.
40 There must be a prospect of at least a given level of such return because capital
41 has other alternative uses. Cost of Capital is the expected rate of return that the
42 market necessitates or calls for to attract funds to a particular investment. In
43 economic terms, as we will discuss later, it is an "opportunity cost" or the cost of
44 foregoing the next best alternative investment, for example an equivalent risk at a
45 higher expected return or a lowered risk at the same expected return.
46

1 There is an abundance of other opportunities for capital employment in a
2 competitive economy limited by resource scarcity, and the relevant "opportunity
3 standard" is always the earnings rates available from comparable risk investment
4 alternatives.
5

6 **Q. When you refer to risk in this framework, what specifically does that mean?**
7

8 **A.** The usual view of risk is one of a chance of loss. This interpretation is too narrow
9 when it is related to investment opportunities. A more meaningful and
10 comprehensive view is that of a chance of "disappointment." Therefore, in a
11 world of many opportunities, investors are not only concerned with the possibility
12 of undergoing an actual loss on their investment. Investors are also concerned
13 with the chance or potential that their returns, though they may be positive, may
14 be less than they expected and less than they could have earned if placed
15 elsewhere. This has been the concern of current South Haven's stockholders
16 since they purchased the common stock of South Haven in 1988.
17

18 **Q. How accurately can an analysis capture comparability for these purposes,**
19 **and therefore arrive at an appropriate rate of return benchmark?**
20

21 **A.** One can never be as accurate as he or she might wish because certain subjective
22 elements are necessarily present in the calculation. Reasonable people can differ
23 somewhat among themselves in their interpretation of a given set of investment
24 data. Nevertheless, there is an abundant amount of evidence available as to the
25 circumstances and the returns on investments of other corporations that compete
26 for capital in our economy.
27

28 I believe there is enough information available to assist in making reasonable
29 conclusions relative to the proper level of return for South Haven.
30

31 **Q. Is the Cost of Capital the same thing as a Fair Rate of Return?**
32

33 **A.** No, the Cost of Capital is a consideration in the calculation of a Fair Rate of
34 Return. A factor to be considered is in calculating the Fair Rate of Return that the
35 calculation chosen should never produce a return less than the Cost of Capital.
36 The Fair Rate of Return is a percentage that can be made into an earnings
37 requirement only after applying that percentage to a rate base.
38

39 When determining what constitutes the "fair rate of return" on a fair value rate
40 base for a utility, regulatory commissions generally calculate a composite or
41 "weighted cost of capital". The Commission does so by adding together the costs
42 of various components of a utility's capital structure. This serves as the initial
43 point of reference in establishing the "fair rate of return" on fair value rate base
44 for utility operations.
45
46

1
2
3 **COMMON EQUITY**

4 **Q. What occurs after the determination of the "Fair Value" Rate Base of the**
5 **used and useful property has been made?**

6 **A.** Once the rate base or the final determination of the fair value of the used and
7 useful property has been determined, the Commission must determine the fair rate
8 of return on that rate base. As I testified earlier, the starting point is the utility's
9 weighted cost of capital. L.S. Ayres & Co. v. Indianapolis Power & Light Co.
10 351 N.E.2d 814, 820-821 (Ind. Ct. App. 1976). Ultimately, though,

11
12 what annual rate will constitute just compensation depends
13 upon many circumstances, and must be determined by the
14 exercise of a fair and enlightened judgment, having a
15 regard to all relevant facts. A public utility is entitled to
16 such rates as will permit it to earn a return on the value of
17 the property, which it employs for the convenience of the
18 public and equal to that generally being made at the same
19 time and in the general part of the country on investments
20 in other business undertakings which are attended by
21 corresponding risks and uncertainties.

22
23 The return should be reasonably sufficient to assure
24 confidence in the financial soundness of the utility and
25 should be adequate, under efficient and economical
26 management, to support its credit and enable it to raise the
27 money necessary for the proper discharge of its public
28 duties.

29
30 Office of Utility Consumer Counselor v. Public Serv. Co. 449 N.E.2d 604,
31 607-608 (Ind. Ct. App. 1983) (quoting Bluefield Water Works &
32 Improvement Co. v. Pub. Serv. Comm'n of West Virginia, 262 U.S. 679,
33 692-693, 43 S.Ct. 675, 679, 67 L.Ed. 1176 (1923)).
34

35 **Q. In the aforementioned PSI case, which quoted the Bluefield case, the Indiana**
36 **Court of Appeals stated that "the return should be reasonably sufficient to**
37 **assure confidence in the financial soundness of the utility". How important is**
38 **financial integrity to South Haven?**

39
40 **A.** The importance of financial integrity cannot and should not be underestimated.
41 Notwithstanding that model, or combination of models, that is used to establish an
42 appropriate cost of equity, the result should be tested with respect to the
43 maintenance of the utility's financial integrity. The Court's seminal opinion in
44 *Bluefield* held that the allowed return on equity should be sufficient for the utility
45 to maintain financial integrity and attract capital (both debt and equity) on
46 reasonable terms. This means, for example, that a utility should not have to sell

1 equity at below book value. With respect to debt, a utility's debt credit rating
2 should not be below investment grade (i.e., below BBB, a S&P rating).
3

4 Therefore, calculations of pro-forma "Interest Coverage" should be made to see if
5 the proposed return on equity is consistent with an investment grade bond rating,
6 and likewise with a market-to-book ratio. Clearly, however, a utility with a AA
7 bond rating will have a lower cost of both debt and equity compared to one with a
8 BBB bond rating.
9

10 For example, at December 31, 2006 from our Proxy Group American States
11 Water Co. has an A- S&P bond rating, which is the same as one year ago but
12 down from an A+ of two years ago. Its Moody bond rating is A2, which is the
13 same for the last two years ago. On the other hand California Water Service
14 Group has no reported S&P bond rating whereas two years ago its rating was an
15 A+. It does not have a current Moody bond rating but last year its Moody bond
16 rating was A2 and two years ago it was an A1 rating. Middlesex Water Company
17 has an A S&P bond rating whereas for the last two years it had A+ S&P bond
18 rating. Its Moody bond rating for this year and last year is not reported, whereas
19 two years ago it was an A2 bond rating. Connecticut Water Service has an AAA
20 S&P Bond rating for this year, whereas last year it was an AA+ S&P Bond rating,
21 and the year before it was an A rating. Moody did not report any rating for this
22 year or the last two years. (Please refer to page 24 January 2006, 2005, and 2004
23 *AUS Utility Reports*; hereafter "AUS Utility Reports") The Times Interest Earned
24 Ratios for the aforementioned companies for 2005 are as follows:
25

	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
American States Water	4.58	2.79	2.17	2.88
California Water	3.67	3.42	2.84	2.88
Connecticut Water	4.46	4.52	3.62	4.10
Middlesex Water	2.88	3.24	2.89	3.26

31
32 The average TIE ratio for the Proxy Group in 2005 is 3.06 whereas in 2004, it was
33 3.23 and the geometric mean in 2003 is 2.98 and in 2002, it was 3.20. At this
34 time, I do not know what the TIE ratios are for the Proxy Group in 2006. The TIE
35 ratio is but one factor in the determination of S&P and Mood bond ratings. So, as
36 we determine what South Haven's Cost of Equity is to be, it is important to
37 remember to test TIE ratio of South Haven with the Proxy Group in regard to the
38 financial integrity of South Haven when determining its Cost of Equity.
39

40 **Q. How will you approach this examination of the Cost of Capital and more**
41 **particularly the Cost of Equity of South Haven?**
42

43 **A.** I will address the question of the pertinent criteria for the investment rate of return
44 requirements in an "opportunity cost" framework. I will scrutinize the data,
45 which allows us to translate these criteria into explicit earnings standards. Then, I
46 will apply those standards to the particular situation of South Haven.

1
2 **Q. What were your considerations in regard to the Cost of Equity Capital of**
3 **South Haven?**

4
5 **A.** The following factors were considered:

- 6
7 1. The current economic conditions as related to cost of capital,
8 2. Any adjustments essential to the contemplation of South Haven's quality
9 in the investment community and size rating, and
10 3. Any adjustments in regard to the uncommon appearances or peculiarities
11 of South Haven's service territory relative to the companies in the sample
12 of water and sewer utilities.
13

14 **Q. How should the cost of common equity be determined?**
15

16 **A.** For a regulated wastewater management company like South Haven, the
17 minimum Cost of Common Equity should be:

- 18
19 1. Of such a level that is sufficient to attract capital to the business on
20 reasonable terms,
21 2. Able to maintain the financial integrity of the company, thereby allowing
22 the company to render continuous and reliable service to its customers at a
23 reasonable cost, and
24 3. Adequate enough to provide the company with a return commensurate or
25 equal to the available investments of corresponding risk.
26

27 The calculation of the Cost of Common Equity Capital should consider:

- 28
29 1. The business and financial risk faced by the company,
30 2. The current economic conditions faced by the company,
31 3. The quality and size rating of the company, and
32 4. The unique aspects of the service territory.
33

34 These are all significant conditions in determining the Cost of Common Equity
35 Capital.
36

37 **Q. What investigations have you performed and how have you prepared for this**
38 **testimony?**

39
40 **A.** My investigations included, but were not limited to the following activities:

- 41
42 1. An analysis of the current trends in the Cost of Capital by utilizing a
43 number of sources for information about capital markets, which are
44 considered to be acceptable in the field of financial analysis. The
45 Commission and Office of Utility Consumer Counselor ("OUCC") as well

1 in previous Causes have used or referred to the same sources for
2 information about capital markets.

3
4 2. I have analyzed current trends including Cost of Capital of the water and
5 sewer utility industry by reviewing AUS Utility Reports, the 2006 Stocks,
6 Bonds, Bills and Inflation Valuation Addition published by Ibbotson
7 Associates, and 2006 Stocks, Bonds, Bills and Inflation Yearbook
8 published by Ibbotson Associates.

9
10 3. The investigation also included a review of the certified audited financial
11 statements of South Haven, which were prepared with my participation.
12 Also, the investigation included a review of the certified audited financial
13 statements of the proxy group.

14
15 **Q. What is the theoretical foundation for the determination of an appropriate**
16 **rate of return for a public utility?**

17
18 **A.** As we noted earlier, for a regulated utility like South Haven the principles are that
19 the utility should be allowed to earn a rate of return sufficient to permit it to:

- 20
21 1. Attract the necessary capital that is required to meet its service demands,
22 2. Properly maintain its financial integrity as an ongoing enterprise, and
23 3. Provide its investors or owners with a return like that available from
24 correspondingly risk alternative investments. These criteria are consistent
25 with those made clear by the Bluefield case and by the Indiana Supreme
26 Court in Public Service Comm'n v. Indiana Bell Telephone Co., 130
27 N.E.2d 467, 480 (Ind. 1955).

28
29 **Q. Are those standards interrelated?**

30
31 **A.** Yes. The only way a company, whether it is a public utility or any ongoing
32 enterprise, can attract new capital is to generate an income stream that is adequate
33 enough to both comfortably pay its fixed financing obligations on any loans
34 outstanding and preferred stock or proprietary claims, and to offer common equity
35 investors a return equal to the risks of the residual claim position to which they
36 are exposed.

37
38 **Q. How does the theory of "opportunity cost" address these concerns?**

39
40 **A.** Because there are many choices for investment funds in our free enterprise
41 society, no company can survive over the long run unless it meets the securities
42 market's test of investment return sufficiency. A regulatory agency cannot
43 compel the private sector suppliers of capital to direct their funds to a particular
44 public utility. The suppliers of capital will only do so if the company is an
45 attractive investment.

1 Possibly, the attraction of capital is something regulators may want to look at
2 more closely in the future. For example, about two years ago parts of Canada, the
3 northeastern area of the United States, and some portions of the eastern part of the
4 Midwest United States, experienced a serious blackout. Apparently, there has not
5 been any significant investment in transmission and distribution lines in those
6 areas affected by the blackout for a long period of time, 25 to 50 years. The point
7 I wish to make is that if the investors or the stockholders expectation of a return is
8 not met, they will not invest.
9

10 Thus, it is eventually the many alternative investment choices that define rate of
11 return adequacy, and therefore, determine the requirements for financial integrity,
12 risk compensation, and continuing new capital accessibility.
13

14 **Q. Does the theory of "opportunity cost" also apply to debt capital and**
15 **proprietary claims, such as preferred stock, as well as to common equity**
16 **capital?**
17

18 **A.** Yes, it does, because the rate of return that investors call for on the capital they
19 have supplied in the form of debt or preferred stock are set fundamentally by the
20 risks they bear, by the prevalent securities market conditions, and by other
21 external investment choices. The sole feature that differentiates debt and
22 preferred stock from common equity capital is that once the funds are acquired
23 the required rate of return is then fixed in the respective financing agreements
24 between the borrower and the lender. The point is that the creditors and the
25 preferred stockholders have priority claims to earnings over the equity capital
26 stockholders.
27

28 **Q. You indicated that the determination of the Cost of Common Equity requires**
29 **an analysis of risk. What are the risks faced by an investor or shareholder**
30 **when they are considering purchasing the common stock of a company?**
31

32 **A.** When an investor purchases the common stock of a company, there are a number
33 of risks he encounters, and he expects to be compensated for them. The risks that
34 an investor considers when making an investment decision relative to the required
35 return are as follows:
36

37 1. Financial Risk is related to the amount of debt of the company. There is
38 more risk to the shareholder as the debt increases even though the initial
39 cost to ratepayers declines as debt increases. Those who hold the debt
40 receive first claim to the profits or earnings of the company in accordance
41 with an agreement with the company, as a company increases its debt, the
42 claims or rights of the debt holders on the earnings of the company
43 increase.
44

45 2. Interest Risk is associated with the uncertainty of future rates of return.
46

1 3. Inflation Risk is connected to the erosion in the purchasing power of
2 investments.

3
4 4. Business Risk comes about because of the supply and demand as with a
5 water utility where there is no substitute for water, water is essential not
6 only for human life but also to many commercial users and industrial
7 users. For sewer service, there are substitutes that could be used other
8 than a wastewater treatment facility or sewage service company such as
9 South Haven. Thus, South Haven is exposed to demand risks. For
10 example, a developer could install a septic system and commercial user
11 could install what is known as a mound system.

12
13 The so-called "monopoly" position of most sewer utilities is less
14 significant than they may have formerly seemed. There may be only one
15 company serving a particular community; but it is not the only possible
16 source of sewerage service. As was pointed out earlier, the builder of a
17 new residential subdivision can elect to install a septic system rather than
18 use the service of a rural sewerage company, such as South Haven. A
19 developer of a mobile home park can construct its own waste treatment
20 system. Industrial firms can do the same.

21
22 Even where South Haven has attempted to limit this risk, South Haven is
23 in danger of losing service territory. In Cause No. 42778, several
24 landowners and a developer petitioned the Commission to remove certain
25 territory from South Haven's CTA. If they had become successful, it
26 would have increased the risk to South Haven's stockholders and
27 eventually would have caused an increase in rates to its existing
28 ratepayers.

29
30 Also, there is competition from municipally owned wastewater treatment
31 facilities. As communities expand, service is required in areas that did not
32 previously have sewage treatment systems in place. Frequently, such
33 expansions occur in locations that are next to more than one existing
34 sewage company service territory; thus, developers may well have a
35 choice as to which system to connect to and use. These uncertainties
36 regarding those mandates and choices add yet another element of
37 unpredictability to the demand for service at the level of the individual
38 wastewater treatment enterprise. (See South Haven Cause Nos. 40144 and
39 41135, 42142 and 43007.) For example, South Haven has been involved
40 in several CTA requests where municipalities have objected to all or parts
41 of the requested territory. In a recent CTA case (Cause No. 43007)
42 Portage remonstrated against South Haven petition to increase its CTA.
43 The Commission issued a CTA to South Haven; however, Portage
44 appealed the Commission's Order and the matter is pending before the
45 Indiana Court of Appeals. In a prior CTA case (Cause No. 42142), the
46 City of Portage successfully prevented South Haven from obtaining a

1 CTA over a portion of the territory that South Haven had requested.
2 Moreover, the City of Portage has attempted to annex land (and thereby
3 preclude South Haven from obtaining a CTA to serve such territory)
4 against the wishes of the landowners that South Haven could conceivably
5 serve.
6

7 Sewer utilities are exposed to significant business risk. Commercial sewer
8 demand will go up or down with business cycles. Depending on the scope
9 of the cycle, companies will move in and out of the service territory of the
10 utility company. Residential demand will increase or decrease depending
11 as the workforce increases or decreases according to economic conditions.
12 For example, in the mid 1980's there was a serious decrease in demand for
13 South Haven's sewer service when the steel industry was experiencing
14 economic problems in Northwest Indiana and as a result, South Haven had
15 fewer customers. As we all now know the steel industry in Northwest
16 Indiana is not in the greatest financial condition. LTV and Bethlehem
17 Steel Companies filed bankruptcy and have been purchased by ISG, and
18 ISG has since been purchased by Mittal Steel, a foreign, closely-held
19 corporation with its corporate office located in London, England. Also,
20 National Steel filed bankruptcy and was purchased by U.S. Steel. Thus,
21 the impact of the prosperity of the steel industry is another risk faced by
22 South Haven.
23

24 Weather conditions can have a powerful influence not so much on price
25 demand but on the operations demand. Any continuous wet weather flow
26 can hamper the operations of a wastewater treatment facility. For that
27 matter, continuous dry weather conditions can create operational
28 difficulties as well.
29

30 Sewer utilities operate subject to significant environmental regulation, and
31 this translates into environmental risk. Because of the need for capital
32 expenditures, sewer utilities are exposed to substantial financial risk,
33 interest and inflation risk and environmental risk. This can be evidenced
34 in South Haven's case by its Consent Decree with the EPA.
35

- 36 5. Regulatory Risk occurs because of environmental, price, service territory,
37 rate of return, or other regulations that may affect the company.
38 Environmental risk deals with separate regulatory agencies other than the
39 Indiana Utility Regulatory Commission (IURC or Commission). Those
40 agencies include the Indiana Department of Natural Resources (DNR),
41 Indiana Department of Environmental Management agency or the United
42 States Environmental Protection Agency (USEPA).
43

44 Now, one can almost drink the water that comes from South Haven's
45 wastewater treatment. This has not been accomplished without a
46 significant expense. If the utility is to continue to comply with the Acts

1 imposed by Congress, it will require funds to do so. This means that the
2 stockholders shall be put at a great risk and the customers will have to pay
3 the rates that will ensure the earnings requirement that the creditors and
4 stockholders need in order for them to supply the capital that is needed.
5 The water and sewer industry has warned the public that the consequences
6 of these federal Acts and amendments will be higher costs to consumers.
7 South Haven was forced into an "Agreed Order" with IDEM to resolve
8 certain inflow and infiltration problems. As a result South Haven was
9 literally forced to enter into a stipulated agreement with the OUCC to sell
10 its water utility so the OUCC would not contest the request for debt
11 approval by the Commission for South Haven to construct a new
12 wastewater treatment facility. One of the reasons that there is few, if any,
13 at all publicly traded sewer utilities is because of the substantial risk
14 involved.

15
16 Moreover, South Haven has entered into a Consent Decree with the
17 USEPA, which was effective November 18, 2003. The Consent Decree
18 requires that South Haven make a significant investment in its collection
19 system to eliminate SSOs, Sanitary Sewer Overflows. This regulatory risk
20 is not new to South Haven's rate cases. It has been one of the underlying
21 topics of a number of South Haven rate causes since 1992.

- 22
23 6. Litigation Risk is a risk that expands the exposure of wastewater treatment
24 plant operators to so called "citizens' suits" for alleged permit violations.
25 So says, Attorney Dan Kucera of the law firm of Chapman and Cutler, 111
26 W. Monroe Street., Chicago, Illinois 60603-4080 in an article entitled,
27 "Recent Court Decisions May Expand Wastewater Plant Risks," of the
28 October, 1996, publication of Water/Engineering & Management.

29
30 Mr. Kucera noted there have been several recent court decisions that
31 expose plant operators to these so called "citizens' suits." One he referred
32 to was a U.S. Supreme Court decision issued on June 24, 1996, in the
33 Northwest Environmental Advocates v. City of Portland, 56 F.3d 979 (9th
34 Cir. 1995), 116 S. Ct. 2550 (1996). Mr. Kucera claims that this "decision
35 held that non-numerical state water quality standards included in a state
36 issued NPDES permit is enforceable in a citizens' suit even though they
37 are not specific effluent limits." He said that the federal Clean Water Act
38 generally adopts what is known as the "private attorney general" concept.
39 This allows private citizens to be authorized to sue to enforce an effluent
40 standard, a limitation or an order and to seek penalties against any person
41 alleged to be in violation of an effluent standard or limitation or of an
42 order issued by the USEPA or a state that respects such a standard or
43 limitation, 33 U.S.C. § 1365. On the other hand, he said citizens' suits
44 have been barred where they would be a duplication of an administrative
45 penalty action being diligently prosecuted or where there has been a final
46 U.S. EPA or state order and penalty paid. 33 U.S.C. § 1319(g)(6).

1 Apparently, the U.S. Supreme Court ruling in the Northwest
2 Environmental Advocates v. City of Portland changed that.

3
4 Mr. Kucera also mentioned two other cases that increase the risk to utility
5 companies one is the Culbertson v. Coats American Inc., 913 F. Supp.
6 1572 (N.D. Ga. 1995). In this case the court ruled that a citizens suit was
7 not barred by state administrative orders that extended compliance
8 deadlines. In Citizens For A Better Environment California v. Union Oil
9 Co. of California, 83 F.3d 1111 (9th Cir. 1996), the Court ruled that even
10 if a discharger paid \$780,000 to settle litigation over effluent limits, a
11 citizens' suit was not barred because the payment was not a penalty.

12
13 **Q. Are there additional risks and concerns associated with the operating costs of**
14 **an individual sewer utility?**

15
16 **A.** Yes. There are many of the risks and concerns are the same as those that are
17 faced by unregulated and other regulated businesses. For example, higher costs
18 for wages, supplies, and plant costs over the long term because of long term
19 inflation trends. Inflation can be defined as an increase in the volume of money
20 and credit in relation to the available goods resulting in a substantial and
21 continuing rise in the general price level of those goods. Although we have been
22 very fortunate for the past few years in regard to inflation, price increases are no
23 doubt continuing and will continue to occur. Thus, inflation still looms in the
24 back of our minds as a major concern. Many of us still recall the enormous
25 inflation rates of the late 70's and early 80's.

26
27 However, although inflation has not been a serious overall problem, we have not
28 been as fortunate in regard to Group Insurance and General Liability Insurance.
29 We have seen the group insurance double since 2000 and general liability increase
30 substantially in the last two years.

31
32 **Q. How important is it for water and sewer utilities to attract capital?**

33
34 **A.** It is extremely important for water and sewer utilities to have the ability to attract
35 capital because they are so capital intensive. The attraction of capital is a
36 significant concern for water and sewer companies because of the requirement for
37 plant investment. Water and sewer utilities are several times more capital
38 intensive than other public utilities or unregulated industrial companies. For
39 example the January 2007, AUS Utility Reports and for December 2006 show the
40 following average ratios of net plant investment to annual operating revenues or
41 capital intensity to annual revenues:
42

December
2006

Telephone Utilities

.99

Natural Gas Distribution	1.15
Combination Electric and Gas	1.37
Electric Utilities	1.47
Water Utilities	3.36
South Haven	2.69

In manufacturing companies, which are not regulated, ratios typically range from 0.40 to 0.80. Water and sewer utilities have a specific necessity to attract capital because "accounting depreciation" is based on original cost of the plant property; and, even when depreciation is part of the rates, it is not adequate to replace the rapidly inflating cost of the company's fixed assets.

South Haven is an excellent example. In 1963, South Haven built a treatment plant for \$200,000. In 1994, South Haven replaced that plant for \$3.8 million. Even the OUCC admitted that South Haven built its new plant at a substantial savings, which savings was in excess of \$3.50 per gallon or about \$3.7 million.

Furthermore, the capital ratio of net plant investment to annual operating revenues indicated above shows the vast amount of capital required to expand water and sewer utilities compared to other utilities.

The sewer utility industry must attract large amounts of capital to replace and renovate existing wastewater management systems besides expanding service. It is commonly known that sewer utilities generally are required to attract greater amounts of capital than water utilities. The Clean Water Act Amendment of 1996 has increased the capital demands of water and sewer utilities. In fact, the Clean Water Act of 1974 and its subsequent Amendments have created an increased need for capital in the water and sewer industries. The rates of return of water and sewer utilities must be enough to attract the enormous amount of capital demanded by this capital-intensive industry. As a direct result of the new plant expansion, it can be seen from the above regulated industry comparison of net plant in service to revenues that South Haven's pro-forma ratio of 2.69 is greater than the regulated industry average but substantially less than the AUS water utilities' ratio of 3.36.

Q. What is your conclusion about South Haven's risks associated with common equity capital investments in water and sewer companies?

A. South Haven is not publicly traded, it is necessary to start with a group that approximates South Haven's characteristics. Since there are not any publicly traded sewer utilities, it is logical as a starting point to look at publicly traded

1 water utility common stocks for guidance in establishing an allowable rate of
2 return on common equity capital for South Haven. The returns of the proxy
3 groups are the basis from which to define the external "opportunity cost" standard
4 of investment return adequacy, which I discussed earlier in my testimony.
5

6 **Q. Have you identified a Proxy Group of companies that may be useful as**
7 **standards from which to compare for your purpose?**
8

9 **A.** Yes, it is composed of all the companies, of which there are 10, in the industry
10 from which AUS Utility Reports maintains data. Several of the companies
11 included in AUS Utility Reports were identified as having wastewater
12 management or sewer service operations.
13

14 If this Proxy Group becomes a problem for the OUCC, or the Commission, I am
15 certain further research will indicate that the water utilities within the Proxy
16 Group operate wastewater treatment facilities. The vast majority of water and
17 sewer utilities in the U.S. are either municipally owned or so small they have no
18 determinable real trading market for their shares. The companies depicted on the
19 AUS Utility Reports list achieves the meaningful reference points for assisting in
20 determining water company (which wastewater management or sewer service
21 companies are similar in many respects) equity return requirements.
22

23 **Q. How does the financial risk of South Haven compare with other water and**
24 **sewer utilities within your proxy group?**
25

26 **A.** At December 31, 2006 South Haven has \$5,189,937 of long-term debt pro-forma
27 debt capital. (See Exhibit ELB-1, Schedule 11, sum of figures in Column A,
28 lines 1 through 5)
29

30 South Haven has \$3,617,387 of common equity capital (See Exhibit ELB-1,
31 Schedule 11, line 6), which represents 41.07% of the total long-term debt and
32 common equity capitalization (\$3,617,387 divided by \$8,807,324). The total
33 long-term debt and common equity capitalization is \$8,807,324. (See Exhibit
34 ELB-1, Schedule 11, sum of figures in Column A, lines 1 through 6). The
35 long-term debt to total debt and equity capitalization ratio for South Haven is
36 58.93% (\$5,189,937 divided by \$8,807,324.)
37

38 The AUS Proxy Group equity capitalization rate at December 31, 2006, ranged
39 from 38%, to 58%, which means the long-term debt capitalization rate average
40 would be from 62% to 42% at December 31, 2006. (See AUS Utility Reports
41 page 24 January 2007). South Haven's equity capitalization rate was 41.1% and
42 its long-term debt capitalization rate was 58.9% at December 2006. It can be
43 concluded that South Haven's Pro-forma Long-term Debt as a percent of Total
44 Capitalization and its Pro-form Equity as a percent of Total Capitalization at
45 December 2006 is more risky than the Proxy Group in terms of the Long-term
46 Debt and Equity as a percent to Total Capitalization.

1
2 As far as South Haven's Pro-forma Long-term Debt and Equity as a percent of
3 Total Permanent Capitalization, it is 58.9% and 41.1%, respectively. (See
4 **calculations above derived from figures in Exhibit ELB-1, Schedule 11**). This
5 makes South Haven substantially more risky than the Proxy Group's Long-term
6 debt and Equity average of 52% and 48%, respectively at December 2006. (See
7 AUS Utility Reports page 24 January 2007). South Haven is within the Proxy
8 Group's equity range of 38% to 58% but more risky than the average.
9

10 **Q. Did South Haven purposefully choose the amount of common equity invested**
11 **for this Cause?**

12
13 **A.** Yes.

14
15 **Q. Why did it do so?**

16
17 **A.** The goal at a minimum was to have the South Haven Common Equity as a
18 percent of Total Capitalization within the range of the Proxy Group's Common
19 Equity as a percent of Total Capitalization.
20

21 **Q. How do the TIE and DSC ratios compare with the Proxy Group?**

22
23 **A.** The Proxy Group's average TIE and DSC ratios for 2005 are 3.39 and 2.92,
24 respectively. (See **Exhibit ELB-2, Schedule 7, page 2 of 4 and Schedule 2e**). In
25 contrast, South Haven's 2006 TIE and DSC ratios are 2.02 and 1.72, respectively.
26 (See **Exhibit ELB-1, Schedule 3**). South Haven's TIE and DSC ratios for 2005
27 were 2.16 and 1.82, respectively. If South Haven's DSC ratio reaches 1.50, it is
28 required by its debt agreement with Centier Bank to petition for a rate increase.
29

30 In light of the South Haven's gap between TIE and DSC ratios and those of the
31 Proxy Group, South Haven, given its current rates, is unable to produce a return
32 equal to an optimal bond rating of the Proxy Group. Thus, unless South Haven is
33 allowed the opportunity to earn a return that produces TIE and DSC ratios
34 comparable to that of the Proxy Group, it is not in accordance with the standards
35 set forth by the Bluefield and Hope cases because it cannot be "reasonably be
36 expected to maintain financial integrity, attract necessary capital, and fairly
37 compensate the risks they have assumed," *Permian Rate Cases*, 390 U.S. 747
38 (1968). South Haven anticipates without a rate increase that its DSC ratio would
39 fall below 1.50.
40

41 **Q. Is South Haven's Test Year TIE Ratio of 2.02 and DSC Ratio of 1.72 of 2006**
42 **equal to that of the Proxy Group of 2005?**
43

1 A. No. The Proxy Group's Average TIE and DSC Ratios are 3.39 and 2.92,
2 respectively for the year ended 2005. The Proxy Group's Geometric Mean TIE
3 and DSC Ratios are 3.21 and 2.60, respectively. South Haven's TIE Ratio of 2.02
4 is 1.37 (3.39 minus 2.02) and 1.19 (3.21 minus 2.02) less than the Proxy Group's
5 Average and Geometric Means, respectively. South Haven DSC Ratio of 1.72 is
6 1.20 (2.92 minus 1.72) and .88 (2.60 minus 1.72) less than the Proxy Group's
7 Average and Geometric Means, respectively. South Haven's Pro-forma DSC
8 Ratio is considerably less than the Proxy Group's Average and Geometric Means
9 and the Test Year is 0.22 within the range of the Centier Bank's covenant
10 requirement of 1.50 to petition for a rate increase. (See **Exhibit ELB-2, Schedule**
11 **7, page 2 of 4 and Schedule 2e**).
12

13 Q. You have indicated that South Haven faces business risks?
14

15 A. Yes.
16

17 Q. Can business risks be measured quantitatively?
18

19 A. Yes.
20

21 Q. How can business risks be measured quantitatively?
22

23 A. Business risk comes about primarily because of two factors:

- 24 1. The fluctuation of revenues, and
25 2. The level of the companies fixed operating costs, which is a function of
26 how the company operates.
27 The simplest way to measure business risk is to measure the coefficient of
28 variation of income earnings, which is equal to the standard deviation of
29 net income divided by the mean of net income (refer to p. 135 Valuing A
30 Business Third Edition 1996 by Shannon P. Pratt, Robert F. Reilly and
31 Robert P. Schweih's) i.e.:

32
33
$$\text{Business risk} = \frac{\text{Standard deviation of net income}}{\text{Mean of net income}}$$

34
35

36 Q. How does the South Haven's coefficient variation of earnings per share
37 compare with the proxy group?
38

39 A. The business risk measured by the coefficient variance of the standard deviation
40 of South Haven's Net Income per share divided by the mean of its Net Income per
41 share is 1.65 for the years from 1984 to 2006. Whereas, the business risk of the
42 proxy group is 0.30 for the time period of 1984 through 2005. (See **Exhibit**
43 **ELB-2, Schedule 10**).
44

45 Q. What does the business risk comparison indicate?
46

A.1 It indicates to me that South Haven's business risk is substantially greater than the
2 proxy group. In fact, the calculation shows it is about 5.5 times greater than the
3 proxy group. (See ELB-2, Schedule 10 where South Haven Business Risk of
4 **1.65 divided by Proxy Group Business Risk of 0.30 and equals 5.48 times**).
5 Thus, it can be quantitatively concluded that South Haven's business risk is
6 substantially greater than the proxy group.
7

8 **Q. In regard to operating expenses how does South Haven compare to the Proxy**
9 **Group?**
10

11 A. In regard to the operating expenses South Haven in 2005 cost per customer was
12 \$656.09 compared to the Proxy Group's Arithmetic Mean of \$631.57. (See
13 **Exhibit ELB-2, Schedule 7, page 4 of 4**). For the year ended 2006, South
14 Haven's cost per customer was \$655.98 per customer. Since we have used a
15 Water Industry Proxy Group and South Haven is a sewer only utility, I believe we
16 can conclude that South Haven's 2005 and 2006 cost per customer is comparable
17 to the Proxy Group's average cost per customer.
18

19 **Q. Why is South Haven's cost per customer more than comparable with the**
20 **Proxy Group, which is comprised of water utilities?**
21

22 A. South Haven's cost per customer is more than comparable with the Proxy Group
23 because a water utility's cost per customer is generally substantially less than a
24 sewer utility's cost per customer.
25

26 **Q. What method did you use to estimate the Cost of Equity?**
27

28 A. I used the Capital Asset Pricing Model (CAPM) because it appears to be less
29 subjective than other methods. The Discounted Cash Flow, Fama and French
30 Three-Factor Model, the Historical Risk Premium, Build-up Method, and the
31 Times Interest Earned (TIE) Ratio were used to determine the reasonableness and
32 substantiate the conclusions derived from CAPM. In addition, I tested the results
33 of the CAPM, the Build-up Method, Discounted Cash Flow, Fama and French
34 Extended CAPM, the Historical Premium Method, and TIE Ratio against the
35 principles of law, which was arrived at earlier.
36

37 Results of any recommendation should be able to be tested against the principles
38 of law. One measure of how likely credit is to be maintained and financial
39 integrity preserved. Another is how likely it is that capital can continue to be
40 attracted under reasonable terms and that is the measurement of interest and fixed-
41 charge coverage.
42

43 Interest coverage is usually calculated before income taxes. This is because a
44 company may not have to pay income taxes, but it must pay its interest in order to
45 stay in business. Therefore, it will always have its would be tax dollars available
46 to pay interest first.

1
2 To test the results of our the CAPM, Discounted Cash Flow, Historical Risk
3 Premium or Build-up, and Fama and French's Three Factor Model, we utilized
4 two measurements widely used in the financial community and they are:
5

- 6 1. Times Interest Earned (TIE) ratio, and
7 2. Debt service coverage (DSC) ratio.
8

9 Maintaining a minimum DSC ratio is a covenant in South Haven's loan
10 agreement with Centier Bank. According to the covenant, South Haven must
11 maintain a minimum 1.25 DSC ratio and must seek a rate increase if the DSC
12 ratio is 1.50 or less. If South Haven does not maintain a 1.25 DSC ratio, Centier
13 has grounds to call its loan with South Haven if it deems itself insecure because
14 South Haven has technically defaulted in regard to a loan covenant.
15

16 Additionally, our test included the observation of the total capitalization versus
17 rate base.
18

19 **Q. What is the essence of the Capital Asset Pricing Model?**
20

21 **A.** CAPM is a specific theory based on the "risk premium" methodology that
22 compares yields on bonds and returns on common stocks to establish the extra
23 compensation for risk, which stockholders require because of their residual claim
24 on a company's earnings or profits. It can be said in another way that the CAPM
25 is based on the premise that common equity investors require a higher return for
26 assuming additional risk, with total risk being divided into two types, one being
27 systematic risk and the other being unsystematic risk. Systematic risk is that risk,
28 which affects the entire market including inflation, government monetary policy,
29 fiscal policy or politics. Unsystematic risk is that risk, which is peculiar or unique
30 to a particular company or industry.
31

32 The unsystematic risk is sometimes reduced through diversification of a portfolio.
33 However, in a company like South Haven, with its current limited access to
34 capital, such unsystematic risks remain significant. For example, no Chief
35 Executive Officer of the Proxy Group was required to guarantee the repayment of
36 debt to the debt holders. The stockholders of South Haven were required to
37 guarantee the repayment of debt to its bank in the event of foreclosure. This is a
38 significant unsystematic risk in comparison to the Proxy Group. In addition,
39 South Haven's loan with Centier Bank requires collateralization of virtually all
40 the assets owned by the Stockholders. The returns of each of the securities within
41 a portfolio generally do not move in the same direction at the same time.
42 Therefore, the total risk of a portfolio is less than each security considered by
43 itself. Since the investor can eliminate unsystematic risk through diversification,
44 the market will not reward an investor for assuming unsystematic risk.
45

1 Conversely, systematic risk or market risk cannot be eliminated through
2 diversification. Inasmuch as investments will move in different ways in
3 connection with the market, an investor can make up a portfolio that will assume
4 any amount of market risk he may want. Thus, the returns an investor receives
5 are based upon the market risk that he is willing to assume.
6

7 The measurement relationship of a security to the market is called the Beta. The
8 market refers to the returns on all assets; therefore, by definition the overall
9 market has a Beta of one. Since this is difficult to determine or measure, analysts
10 generally rely on a market index like the Standard and Poor's 500 index as a
11 proxy for the market. Standard and Poor's refers to the Beta as a Price Beta
12 Coefficient and it is defined as follows:
13

14 The beta coefficient is a measure of the sensitivity of a company's
15 stock price to the overall fluctuation in the S&P 500 Index price.
16 For example, a beta of 1.5 indicates that a company's stock price
17 tends to rise (or fall) 1.5% with a 1.0% rise (or fall) in the S&P 500
18 Index price."
19

20 Beta is derived from a least squares regression analysis between monthly percent
21 changes in the price of a company's stock and monthly percent changes in the
22 S&P 500 Index price over a period of time, ending in the most current month. For
23 instance, a one-year beta would include twelve monthly price changes.
24

25 Standard and Poor's Price Beta is calculated by the following formula:

26
$$B = \frac{n \sum XY - (\sum X)(\sum Y)}{n \sum X^2 - (\sum X)^2}$$

27 Where n = number of monthly time periods

28 Where X = monthly price change of S&P 500 Index

29 Where Y = monthly price change of the company's stock
30

31 The Beta used for the Proxy Group in our model was .395, (**Exhibit ELB-2,**
32 **Schedule 2a**), which is Ibbotson's average Beta of the Proxy Group, based on
33 monthly observations. In addition, Ibbotson adjusts the Standard and Poor's Beta
34 by using what is called the "Vasicek" adjustment. According to Ibbotson, this
35 method allows for an adjustment toward industry averages. (Please refer to
36 Ibbotson SBBI Valuation Edition 2006 Yearbook pages 116 and 117 for a more
37 detailed explanation of the Ibbotson's Vasicek adjustment.
38

39 In the past, South Haven had chosen to employ Merrill Lynch betas. The
40 Merrill Lynch betas are adjusted for regression bias, i.e., the tendency for
41 betas to revert to 1.00 over time as described by Blume (1974) as follows:

42
$$B_1 = 0.36 + 0.67 B_0$$

43
44 The investments that are more volatile than the overall market will have beta's
45 greater than one, consequently, they are considered riskier than the market. The

1 investments that are less volatile or less unstable will have beta's that are less than
2 one; accordingly, they are considered less risky or safer than the market.

3
4 The model enumerates the required return on an investment in the common stock
5 of a given company. It can be estimated as the sum of the rate of return that is
6 available from an investment in a risk-free stock, plus an additional return that
7 depends upon the level of risk associated with the company's stock. The latter
8 risk is a function of the average risk of all common equity stocks and the relative
9 level of risk for the individual company in question. The mathematical formula
10 typically used for CAPM defines the required return on an investment in a firm's
11 common shares to be:

$$K = R_f + B(R_m - R_f)$$

12
13
14 Where R_f denotes the rate of return provided by a risk-free security investment
15 (such as a government bond), R_m depicts the prospective return available from
16 investing in a broadly diversified portfolio of common stock investments (these
17 representing an average risk equity investment), and the "coefficient" B (beta)
18 defines the degree of risk inherent in investing in the common stock of the
19 particular company at issue. As we noted earlier if B is less than 1.0, the stock is
20 below average risk as far as the investors' rate of return requirements for it. The
21 term $(R_m - R_f)$ can be anticipated to be the average return "premium" that stocks
22 provide over the investment in governmental securities, because of their higher
23 risk; and, the product $B(R_m - R_f)$ as the return premium being specific to the
24 company being considered, given its particular risk. CAPM is now commonly
25 employed by practitioners and by academic researchers in studies of investment
26 performance and risk, and has been made use of for sometime and is now also
27 used in Commission proceedings as well.

28
29 **Q. How may the information base essential to the model be obtained?**

30
31 **A.** The model requires an estimate of the characteristic return premium $(R_m - R_f)$ that
32 a well-diversified portfolio of common equity stocks provides over the return
33 from a riskless security. In that relation, it should be noted that CAPM is forward
34 looking in concept. It looks at the matter of the return needs in accordance with
35 future income stream, and therefore, formally, it is referred to as an
36 "expectational" model. In practice, the historical data on past return premiums
37 must essentially be used as the input. For that reason, judgment must be used in
38 selecting the historical time period over which such data should be arranged or
39 compiled.

40
41 The historical period to be utilized should be one that can be considered likely to
42 be the most representative of the future period of concern, in the primary extent of
43 the economic environment that will prevail. The necessary balance to be struck
44 requires an examination of a sufficiently long enough historical period in order to
45 obtain estimates of returns that are free from temporary effects on investment
46 results.

1
2 To try and strike a balance, I have concentrated on the interval from 1926 to 2006,
3 that being the most recent year for which information is available from the
4 standard reference source in this area: the annual publication by Ibbotson
5 Associates, which is now Morningstar, entitled Stocks, Bonds, Bills and Inflation
6 2007 Year Book. (See **Exhibit ELB-2, Schedule 2c**). This interval of time spans
7 many different investment circumstances, and market conditions, which can
8 provide information on a normal long run relationship between capital equity
9 returns and riskless investment yields. I have used the interval from 1926 to 2005
10 in the determination of $R_m - R_f$ factor because we really cannot predict the future.
11 For example, we cannot say with any certainty that the 1929 stock market
12 catastrophe will not occur again, nor can we say with any certainty that a world
13 war will not occur again. As was reported in the 2007 edition of Stocks, Bonds,
14 Bills and Inflation, the average difference between the annual return on a
15 diversified stock portfolio, such as the Standard and Poor's 500 portfolio, and the
16 annual income returns from holdings of long term U.S. Treasury bonds, came to
17 7.13% per annum over the period from 1926 to 2006. **(The database is**
18 **contained in Exhibit ELB-2, Schedule 2c).** This is the relevant estimate of the
19 risk premium ($R_m - R_f$) component of CAPM.
20

21 For the twelve months ending December 31, 2006, the yields on long-term 30-
22 year U.S. Treasury bonds averaged 4.90% per annum, as shown in **Exhibit**
23 **ELB-2, Schedule 2b**. This number denotes the risk-free rate component R_f of the
24 CAPM during this time period. When the average is computed over twelve
25 months, it eliminates the effect of temporary fluctuations in yields. If we are
26 given an estimate of the coefficient B , the market required return on common
27 capital equity could also be estimated.
28

29 The 30-year Treasury Bonds were 30-year constant maturity estimated by the
30 Department of Treasury that was based on outstanding Treasury bonds with
31 approximately 30 years remaining to maturity. The Treasury Department, based
32 on the most actively traded marketable Treasury Securities, constructs the yields
33 on Treasury securities at constant, fixed maturity. Yields on these issues are
34 based on composite quotes reported by the U.S. government securities dealers to
35 the Federal Reserve Bank of New York. To obtain the constant maturity yields,
36 personnel at the Treasury Department construct a yield curve each business day
37 and yield values are then read from the curve at fixed maturities. I have used the
38 business day of the last of each month or the next day closest to the last day of the
39 month.
40

41 **Q. How is the Beta coefficient identified?**
42

43 **A.** I used Ibbotson's Water Industry peer group beta updated through March 31,
44 2007, which was an average of 0.395 for the Proxy Group. **(See Exhibit ELB-2,**
45 **Schedule 2a).**
46

1 Q. What is the required return on common capital equity as indicated by the
2 CAPM, given that Beta and the other numbers are inputted into the model?

3
4 A. In the formula of the model with the criteria that apply, the estimated common
5 capital equity returned required is:

6
7
$$K = R_f + (B) (R_m - R_f) = .4.90\% + 0.395(7.13\%) = 7.72\% \text{ per annum.}$$

8

9 With the proxy group companies' business and financial risk situation as a
10 substitute for South Haven, 7.72% per annum would therefore be a good estimate
11 of the minimum South Haven's required return on common equity capital in the
12 traditional cost of equity capital framework. (See Exhibit ELB-2, Schedule 2).
13 However, there is some unsystematic risk, such as the Proxy Group's size, that
14 would be appropriate to consider. When some consideration for size of the Proxy
15 Group investment is determined, an additional 3.88% for size is added to the
16 minimum cost of equity. This additional 3.88% is in accordance with Ibbotson's
17 consideration of the size of assets, which was an additional risk premium
18 adjustment for the unsystematic risks unique to a Small Composite Water Supply
19 Industry. (See Exhibit ELB-2, Schedule 14, which is Ibbotson's Statistics for
20 SIC Code 494).
21

22 After consideration for the Proxy Group's size is added to the CAPM minimum
23 cost of equity, there are two other factors that should be considered as
24 unsystematic risks unique to South Haven and they are as follows:
25

- 26 1. The stockholders are required to personally guarantee the loan to
27 Centier Bank and I am not aware of any stockholders personally
28 guaranteeing any loans for the Proxy Group, which I have
29 discounted at 0.25%.
30
31 2. All stockholders assets are required to pledge additional collateral
32 for South Haven's loan with Centier Bank, which I discounted at
33 0.25%, and I am not aware of any of the Proxy Group who have
34 pledged additional collateral for any of their long term loans.
35

36 After consideration for a size adjustment and additional unsystematic risks, I
37 estimate the overall cost of equity to be 12.10% using CAPM with a size
38 variance unique to the Proxy Group and unsystematic risks unique to South
39 Haven. (See Exhibit ELB-2, Schedule 2).
40

41 Q. Is the size of South Haven compared to the Proxy Group an unsystematic
42 risk that should be considered in this Cause?

43
44 A. Yes.
45

1 **Q. Why is an adjustment for the size to unsystematic risk essential for the**
2 **Capital Asset Price Model.**

3
4 **A.** It is important because investors in small companies expect a greater return in
5 comparison to investors in large companies. The Proxy Group is relatively small
6 in size compared to the market and South Haven is extraordinarily small
7 compared to the Proxy Group. For many years practitioners in the world of
8 finance such as Ibbotson Associates, which was founded by Roger G. Ibbotson,
9 who has a Bachelor of Science from Purdue University, MBA from Indiana
10 University and Ph.D. from University of Chicago and currently is a Professor in
11 the Practice of Finance at Yale University, and Shannon Pratt have emphasized a
12 need or requirement to adjust the CAPM for size. Ibbotson devotes an entire
13 chapter to "Firm Size and Return" in its 2007 Yearbook SBBi Valuation Edition
14 Yearbook. Ibbotson Associates says at the beginning of Chapter 7 Firm Size and
15 Return of its SBBi Valuation Edition Yearbook:

16
17 One of the most remarkable discoveries of modern finance is that
18 of a relationship between firm size and return. The relationship
19 cuts across the entire size spectrum but is most evident among
20 smaller companies, which have higher returns on average than
21 larger ones. Many studies have looked at the effect of size on
22 return.¹ In this chapter, returns across the entire range of firm size
23 are examined.

24
25 Likewise, Shannon Pratt, who is the founder and Managing Director of
26 Willamette Management Associates with a Doctorate in Business Administration
27 majoring in finance from Indiana University with over 40 years experience,
28 devotes an entire chapter to size in his book Cost of Capital (2nd Edition). In
29 Chapter 11 of Shannon Pratt's Cost of Capital (2nd Edition), he examines three
30 studies: Ibbotson Associates Studies, Standard & Poor's Corporate Value Studies
31 (formerly Price Waterhouse Coopers Studies, and a Comparison Valuation
32 Multiple Study of Small Companies from Data on Pratt's StatsTM, a Data Base of
33 Private Company Sales. Mr. Pratt states:

34
35 Three independent sets of empirical studies provide strong support
36 for the proposition that the cost of capital tends to increase with
37 decreasing size. Users of cost of capital data should make
38 themselves aware of updates of these and possibly other similar
39 studies to incorporate the latest current size effect data in cost of
40 capital estimates, whether using build-up models, CAPM, or other
41 cost of equity models. The data currently available provide
42 empirical evidence to help quantify the cost of capital for smaller

1 Rolf W. Banz was the first to document this phenomenon. See Banz, Rolf W. "The Relationship Between Returns and Market Value of Common Stocks", *Journal of Financial Economics*, Vol. 9, 1981, pp. 3-18.

1 companies, and the subject is attracting considerable new research
2 interest.

3
4 **Q. How did you determine the adjustment for the unsystematic risks for size as**
5 **compared to the Proxy Group?**

6
7 **A.** I used Ibbotson's "Size Premium (Return in Excess of CAPM) for its Micro-Cap,
8 9-10 Deciles, which is 3.88%. (See Morningstar's Stocks, Bonds, Bills, and
9 Inflation 2007 Valuation Edition Yearbook Tables 7-5 and Table 7-7 located on
10 pages 137 and 139, respectively.)

11
12 **Q. Can you cite an example of where South Haven's risk would be comparable**
13 **to small companies facing competition in the open market?**

14
15 **A.** Yes. South Haven's risk because of its size and location between two larger
16 municipalities, cities of Valparaiso and Portage, is just as great as an independent
17 small supermarket located between a Wal-Mart and a Meijer store. The cities of
18 Valparaiso and Portage are competing to take away South Haven's customers just
19 as Wal-Mart and Meijer are competing to take away the independent
20 supermarket's customers.

21
22 **Q. Do you agree that "the risks from small size for a regulated utility are not as**
23 **great as those small companies facing competition in the open market"?**

24
25 **A.** I disagree that risks faced by small-sized regulated utilities are less than those
26 risks that small companies face in market competition. In general, I may agree, if
27 the utility did not have any direct competition for customers and was the only
28 utility within a significant number of miles, which is not the case with South
29 Haven.

30
31 However, in the past, there appears to have been some kind of misunderstanding
32 in my use of Ibbotson's Size Premium adjustment. Ibbotson studies based on
33 historical return data on the NYSE/AMEX/NASDAQ decile portfolios
34 determined that smaller deciles have had returns that were not fully explainable
35 by the CAPM. Their studies determined that the return in excess of CAPM grew
36 larger as one moved from the largest decile 1 to the smallest decile 10. In fact,
37 the excess return was and is especially pronounced for micro-cap stocks, which
38 were and are in deciles 9 and 10. The size-related phenomenon prompted
39 Ibbotson to revise its CAPM to include an addition for a size premium. The size
40 premium developed by Ibbotson is referred to by them as a "Return in Excess of
41 CAPM".

42
43 Ibbotson's data includes the Proxy Group because the Proxy Group is listed on
44 either the NYSE, AMEX, or NASDAQ and South Haven is not listed on any
45 market exchange because it is a small closely held company. Ibbotson's "Size
46 Premium," which is a Return in Excess of CAPM only shows the relationship

1 between small companies and large companies as an addition to the respective
2 CAPM premium of each of the small companies relative to the larger companies.
3

4 **Q. Would you be opposed if the Commission or the OUCC invited Drs.**
5 **Ibbotson, Llewellyn, and/or Bouquist or Mr. Kaplan and/or Mr. Pratt, all of**
6 **which are renown Professors of Finance and/or expert witnesses in**
7 **developing "Cost of Equity" in various financial situations before many**
8 **utility regulatory commissions and tax courts through out the United States**
9 **and the World, to testify before the Commission in this Cause in an attempt**
10 **to resolve the "size premium" for South Haven?**
11

12 **A.** I would not be opposed if the Commission or the OUCC would pay the expenses
13 of aforementioned witnesses. Preferably, the aforementioned gentlemen would be
14 witnesses for the Commission with the OUCC and South Haven having the
15 opportunity to cross examine the witnesses.
16

17 **Q. Would you consider the companies in the Proxy Group larger companies**
18 **than South Haven?**
19

20 **A.** Yes, all of the Proxy Group is much larger companies than South Haven. For
21 example, York Water is the smallest company of the Proxy Group with revenues
22 of \$23.89 million in 2005. The 2006 Financial Statements for the Proxy Group
23 were not available at the time this testimony was prepared; thus, the 2005
24 Financial Statements were used. The largest company of the Proxy Group is
25 Aqua America with revenues of \$496.8 million in 2005. The average revenue of
26 the Proxy Group is \$151.3 million for 2005. South Haven revenue for the test
27 year is \$2.8 million before present rate adjustments and after present rate
28 adjustments its revenue is \$3.2 million. It can be readily determined that the
29 Proxy Group on average is 47 times (\$151.3 million divided by \$3.2 million)
30 larger in revenues than South Haven. The largest utility of the Proxy Group is
31 155 times (\$496.8 million divided by \$3.2 million) larger in revenues than South
32 Haven. The smallest utility of the Proxy Group is over 7.4 times (\$23.8 million
33 divided by \$3.2 million) larger in revenues than South Haven.
34

35 **Q. Do you believe a downward adjustment of Ibbotson's Size Premium should**
36 **be made?**
37

38 **A.** No, because the Ibbotson Beta was used in this Cause.
39

40 **Q. Why is it that you do not believe a downward adjustment of Ibbotson's Size**
41 **Premium should be made?**
42

43 **A.** There are several reasons, and they are as follows:
44

- 45 1. Ibbotson's studies are comparing the market relationship of large
46 companies and small companies in regard to size and have determined that

1 over long period the smaller companies have greater return than larger
2 companies. The Proxy Group falls within the 9th and 10th deciles of
3 Ibbotson's study. Therefore, in Ibbotson's study the Proxy Group is
4 actually made up of small companies in relation to the other companies in
5 Ibbotson's study. In addition, I am comparing the Proxy Group to South
6 Haven. I am not comparing South Haven with small companies in the
7 market that may or may not have a lesser risk than South Haven.
8

9 The comparison that I am making is with the Proxy Group. Beta has
10 determined what the systematic risk is in relationship to the market, which
11 was determined by using Ibbotson's Beta that was adjusted downward by
12 using the Vasicek adjustment. There is no comparison of South Haven
13 with smaller companies of the market, which may have a lesser or greater
14 risk.
15

- 16 2. The second reason is that to my knowledge, South Haven has and is
17 experiencing unsystematic risk that neither the Proxy Group or any
18 company, small or large, in Ibbotson studies is or has experienced. This is
19 a very substantial risk, which most companies, small or large, generally do
20 not have to be concerned. To see the consequences of the this one only
21 needs to look at the increase in South Haven's retained earnings from
22 1994 to 2006, which is \$529,632 of which \$726,888 has increased since
23 2003. From 1994 to 2003 retained earnings decreased \$197,256.
24

25 For the reasons stated no downward adjustment of size is required in my
26 judgment. For that matter, Ibbotson did not adjust the size of its Small
27 Composite Water Industry in its computation of CAPM plus size. (See
28 Exhibit ELB-2, Schedule 14).
29

30 **Q. Do you believe the investors of the Proxy Group would approve of an**
31 **decrease of \$197,256 in retained earnings over a ten-year period?**
32

33 **A.** No, if any publicly traded company posted such a miserable result in earnings and
34 had not paid any dividends to boot, you can be certain that the board of directors
35 would have been pressured to replace any CEO who would allow such poor
36 return. I spent 22 years with a public traded company and witnessed the
37 replacement of a CEO, who controlled over 15% of the outstanding shares of
38 stock in an \$800 million company because of poor performance. Performance is
39 not tolerated very long in the realm of publicly traded companies, even in those
40 that are regulated.
41

42 **Q. Are there other approaches to estimating the required return on common**
43 **capital equity?**
44

1 A. Yes. In the State of Indiana the OUCC, which represents the ratepayers, often
2 employs the use of the discounted cash flow (DCF) model. Some practitioners
3 have come to the conclusion that estimates of return on cost of common capital
4 equity that are derived from the dividend yield plus growth rate format of the
5 DCF model are less reliable than those derived from the CAPM. Some
6 practitioners claim often one gets estimates of the cost of common capital equity
7 returns for the individual companies using the DCF model are simply not
8 credible. For example, results can be below the prevailing yields on long term
9 Treasury bonds or below the rates of the subject companies' own senior debt.
10 One such practitioner and expert witness, who believes this to be true, is Wilbur
11 G. Lewellen, Ph.D. of Purdue University's Krannert School of Management. In
12 the Indianapolis Power & Light Company (IPL) Cause No. 39938, Dr. Lewellen
13 was asked, "what do you perceive to be the potential shortcomings of the DCF
14 Model procedure?" He replied:

15
16 The major difficulty lies in the estimation of the growth rate
17 component of the model. It should represent investors'
18 expectations of long term future annual rate of dividend growth for
19 the firm in question. Expectations, of course, are unobservable and
20 can only be inferred, and the inference process is subject to
21 considerable error. Because of this, the DCF model in application
22 often yields estimates of equity return requirements that vary
23 substantially across firms which are basically similar enterprises,
24 and that are simply not credible by any reasonable standard-- for
25 example, equity return requirements which are below the
26 prevailing yields on long term Treasury bonds return requirements
27 or the subject company's own senior long term debt.

28
29 The problems with the DCF approach are well recognized. Thus, the IURC in its
30 1990 Order in Cause No. 38728 for Indiana Michigan Power Company noted that:

31
32 There are three principal reasons for our unwillingness to place a
33 great deal of weight on the results of an DCF analysis. One is...the
34 failure of the DCF model to conform to reality. The second is the
35 undeniable fact that rarely if ever do two expert witnesses agree on
36 the terms of a DCF equation for the same utility--for example, as
37 we shall see in more detail below, projections of future dividend
38 cash flow and anticipated price appreciation of the stock can vary
39 widely. And, the third reason is that the unadjusted DCF result is
40 almost always well below what any informed financial analysis
41 would regard as defensible, and therefore requires an upward
42 adjustment based largely on the expert witness's judgment. In
43 these circumstances, we find it difficult to regard the results of a
44 DCF computation as any more than suggestive. (116 P.U.R.^{4th} 17,
45 18)

46

1 This seems to me to be a good summary of the issues, and a set of
2 reasons to be skeptical of the estimates obtained from the DCF
3 model.
4

5 Dr. Lewellen is a highly respected professor at Purdue's Krannert School of
6 Business and is an advocate of the Capital Asset Price Model, which is the
7 primary model used in this cause. Not unlike Dr. Lewellen, we prefer the less
8 subjective methodology of the CAPM versus the DCF model methodology, but
9 for primarily other reasons. Notwithstanding, we shall use the DCF analysis for
10 the proxy group because the Commission has often considered such a
11 methodology in the past despite its disparaging remarks in the aforementioned
12 Indiana Michigan Power Cause. Our DCF analysis is performed for "suggestive
13 purposes only" as noted by the Commission in the Indiana Michigan Power
14 Company Cause No. 38728 and as a method to support our CAPM analysis.
15

16 **Q. What are the reasons you believe that the DCF model is less relevant in**
17 **South Haven's case?**
18

19 **A.** One of the reasons that a DCF analysis would be less relevant is that South Haven
20 has not paid dividends in recent periods. The reason dividends have not been
21 paid is because earnings have been depressed. The reason earnings have been
22 depressed is because the opportunity to earn an adequate return on equity has not
23 occurred. Thus, the extrapolation of historical dividend growth rates into the
24 future is unreasonable, and the retention ratio method of estimating growth is
25 inoperative as well. The assumptions of constant perpetual growth and constant
26 payout ratio are clearly not met in the case of South Haven. This is why I believe
27 the Commission should give more weight to CAPM and a substantial adjustment
28 for the unsystematic risks unique to South Haven versus a DCF model. Albeit, I
29 shall go through the steps of calculating the DCF estimated cost of equity, a
30 significant premium adjustment must be made to the DCF model to accommodate
31 the risks that South Haven must contend.
32

33 **Q. Is there another reason that you believe that there should not be too much**
34 **emphasis placed on the DCF Model?**
35

36 **A.** Yes. Mathematically, the DCF Model can understate the cost of equity when the
37 market is greater than the book value and can overstate the cost of equity when
38 the market is less than the book value, therefore, it fundamentally misrepresents
39 the expected cost of equity rate.
40

41 **Q. Can you explain why or how the DCF developed common equity cost rate**
42 **misrepresents investors' expected common equity cost rate when the market**
43 **to book ratio is greater or less than 1.00?**
44

45 **A.** Yes, I can. Under the DCF Model the rate of return required by an investor is
46 related to the price paid for the common equity or stock and therefore the market

1 price, the price paid for the stock, becomes the basis for which an investor
2 computes his or her required rate of return. A regulated utility, such as South
3 Haven, is limited to earning on its net book value, which can be depreciated
4 original cost or some trended cost value that determines the fair value in
5 accordance with IC 8-1-2-6. As we will discuss later, market values can differ
6 from book values for many reasons that are not related to earnings. So, when the
7 market values differ significantly from book values, the market based DCF cost
8 rate applied to the book value of the common equity stock will not properly
9 reflect the investor's expected common equity stock cost rate. It will wither
10 overstate or understate the investor's expected common equity stock cost rate
11 contingent upon whether the market value, the price paid, is greater than or less
12 than the book value.

13
14 In **Exhibit ELB-2, Schedule 15**, I provide a hypothetical example of how a DCF
15 arrived common equity stock cost rate misrepresents the investor's expected
16 common equity stock cost rate when the market value is greater than or less than
17 the book value of the common equity stock. Then, in **Exhibit ELB-2, Schedule**
18 **17**, I show how South Haven DCF Model understates cost of equity because the
19 investor's expectations are based on a required return on the market value.

20
21 First, let us examine the hypothetical example as illustrated in **Exhibit ELB-2,**
22 **Schedule 15**. As the example shows there is no realistic opportunity to earn the
23 market based cost rate of return on book value. Please note that in Column A, the
24 investor expects to earn an 8.92%, Column A Line 2, on the Market Value, or
25 price paid, of \$22.04 Column A Line 1. Additionally, Column B shows when the
26 8.92% return on a market value, the price paid, is applied to book value, which is
27 about 48.9% (\$10.76, Column B Line 1/\$22.04, Column A Line 1) of the market
28 value, the total annual return opportunity is only \$0.898, Column B Line 3, per
29 share on book value compared to \$1.966, Column A Line 3, annual return
30 opportunity on the market value of \$22.00, Column A Line 1. With a annual
31 dividend of \$0.703 per share there is an opportunity to grow \$0.195, Column B
32 Line 5, or 0.885%, Column B Line 7, compared to the expected growth of 5.73%,
33 Column A Line 7, in the market price or value expected by the investor. There is
34 no way to possibly obtain the expected growth of \$1.263, Column A Line 5, or
35 5.730%, Column A Line 7, absent a substantial cut in the annual dividend.

36
37 Or, as in South Haven's case, there has been no dividend because it has not been
38 allowed a return on its book value equal to the returns received on average by the
39 comparable Proxy Group. Since 1996, I have been personally perplexed as to
40 why South Haven has not been allowed a return that would allow it to pay
41 dividends and appreciate in growth comparable to the Proxy Groups. It seems as
42 though there has been some kind of plan to purposely prevent South Haven from
43 growing and paying dividends to its stockholders. When the Proxy Group would
44 reduce or withhold altogether the payment of dividends this unreasonable
45 expectation, which would result in an extremely adverse reaction by its investors

1 because it would be a sign of extreme financial distress. The same is true even
2 more so with a small utility like South Haven.

3
4 Conversely, in Column C, where the market to book ratio is .88 to 1, when the
5 8.92%, Column A Line 1, return on the market equity common stock is applied to
6 the book value, which is approximately 13.4% (\$22.04, Column A Line 1, less
7 \$25.00, Column C Line 1, equals \$2.96 divided by \$22.04, Column A Line 1
8 greater than its market value, the total annual return opportunity is \$2.23, Column
9 C Line 3, on its book value with an annual dividend of \$0.703, there is a growth
10 opportunity of \$1.527, Column C Line 5 or 10.12%, Column C Line 6, as
11 compared to the 5.73%, Column A Line 7, growth in the market value expected
12 by the investor. Making an allowance for a dividend of \$0.703 the growth
13 amount would be \$1.527, Column C Line 5, or a growth rate of 6.928%. Column
14 C Line 7.

15
16 Considering the above mentioned example, it seems to be very clear that the DCF
17 Model either overstates or understates an investor's required cost of common
18 equity capital when the market values are greater than or less than the book value
19 common equity capital and thus less weight should be given a DCF Model unless
20 the market value and book values are close to one to one. In my judgment, no
21 weight should be given to the DCF Model when estimating an investor's
22 expectations in a regulated environment. The financial community has come a
23 long way since the DCF Models where the dependent financial model to rely
24 upon in the rate making process of regulated utilities.

25
26 **Q. Are the current market prices of the common stock of the Proxy Group**
27 **greater than their respective book values?**

28
29 **A.** Yes, **Exhibit ELB-2, Schedule 16** depicts the market to book ratios of the Proxy
30 Group from January 2006 through December 2006.

31
32 **Q. Do you believe the market values of Proxy Group will continue to sell above**
33 **its book values?**

34
35 **A.** Yes. Many investors who generally commit less capital to the equity markets, will
36 more than likely continue to commit a greater percentage of their available capital
37 to common stocks because the lower interest rates of an alternative investment
38 opportunities are less attractive than the return on common stocks.

39
40 When using the DCF Model, the rate of return an investor requires is related to
41 the price paid for a stock. The market price of the stock is the basis upon which
42 the investor devises the required rate of return. In the case of a regulated utility,
43 the utility is limited to earning on its net book value rate base, which in Indiana is
44 its "fair value" rate base, which could include a depreciated original cost, a
45 reproduction cost new less depreciation, or some other fair value determination
46 that may be accepted by the Commission.

1
2 The market values of common stock can differ from the book values for many
3 reasons unrelated to earnings, for example, the paying of dividends or not paying
4 of dividends, or maybe an investor with the intention of saving for retirement or
5 their children's education see stocks as the only smart alternative, or maybe
6 investors see Social Security benefits either not being there or significantly
7 reduced before they retire and see stocks as a good alternative, or possibly mutual
8 funds marketing has diverted billions of dollars from low interest savings account
9 to stocks, or maybe because of the data now available via the internet the
10 mystique of the stock market has been dispelled and everyone believes they can
11 make good market decisions.
12

13 The traditional rate base and rate of return regulation, where market based
14 common equity cost rate is applied to a book value rate base, it presumes that the
15 market to book ratios are equal to one. As we noted earlier, there is sufficient,
16 empirical evidence over long periods that demonstrate this is an incorrect
17 assumption. Market to book ratios equal to one are rarely the case. As we noted
18 above there are many factors affecting the market price of common stocks besides
19 earnings. Furthermore, the allowed return on equity has a limited effect on an
20 utility's market to book ratios because market prices are influenced by a number
21 of factors beyond the direct influence of the regulatory process.
22

23 James C. Bonbright, Albert L. Danielson and David R. Kamerschen in their book
24 Principles of Public Utility Rates, 1988, Public Utilities Reports, Inc. Arlington,
25 Virginia, page 334 states:
26

27 In the first place, commissions cannot forecast, except within wide
28 limits, the effect their rate orders will have on the market prices of
29 the stocks of the companies they regulate. In the second place,
30 whatever the initial market prices may be, they are sure to change
31 not only with the changing prospects for earnings, but with the
32 changing outlook of an inherently volatile stock market. In short,
33 market prices are beyond the control, though not beyond the
34 influence of rate regulation. Moreover, even if a commission did
35 possess the power of control, any attempt to exercise it in the
36 manner just suggested would result in harmful, uneconomic shifts
37 in public utility rate levels.
38

39 **Q. Can you describe how South Haven's DCF Model is understated based upon**
40 **the Proxy Group's market to book ratio?**

41
42 **A.** Yes, if we go to **Exhibit ELB-2, Schedule 17**, we will find where we have
43 determined that via the DCF Model that the cost of equity rate is 10.58%, which
44 is the DCF rate of 10.08% plus additional business risk or quality adjustment of
45 .50%, Column C Line 6.
46

1 Since the market to book ratio of the Proxy Group was determined to be 2.50 to 1,
2 (see **Exhibit ELB-2, Schedule 17**), South Haven market capitalization was
3 converted from South Haven book value by multiplying South Haven book value,
4 Column A Line 6, times 2.50 to derive a market capitalization of \$9,050,100, see
5 Column A Line 15 of **Exhibit ELB-2, Schedule 17**. When this computation is
6 made, we determined that the weighted cost of capital using the market
7 capitalization is 9.199%, Column D Line 18, which is 1.296%, Column D Line
8 18, greater than the weighted cost of capital using the book value, see Column D
9 Lines 9, 19, and 20 of **Exhibit ELB-2, Schedule 17**.

10
11 **Q. What should be the common equity rate using the book value in order to**
12 **equal the weighted cost of 9.199%, which is the weighted cost of capital using**
13 **the market capitalization of 2.50 times the book capitalization?**

14
15 **A.** The cost of equity rate using the book value capitalization amount is 13.915%.

16
17 **Q Please explain the Discounted Cash Flow (DCF) Model.**

18
19 **A.** The DCF model, utilized to determine a price of a common stock, comes from a
20 basic assumption that common stock investors are interested in the dividend yield
21 expected the following year and the future or long-term growth in dividends. It
22 can be said that the value of the stock equals the sum of the cash flows that the
23 stock generates. The sums of these cash flows are discounted back to the present.
24 In the DCF model or the "Constant Dividend Growth DCF Model", the dividend
25 expected next year is expected to grow to infinitely, or forever, at a constant
26 continuous growth rate.

27
28 The following equation shows the constant growth DCF model:

29
30
$$Po = D1 / (k-g)$$

31
32 The stock price (Po) equals the expected future dividend (D1) divided by the
33 company's cost of equity (k) less the constant long-term expected annual growth
34 rate (g) of the dividends per share (DPS). The Constant Growth DCF Model
35 presumes that the stockholders expect earnings per share (EPS), book value per
36 share (BVPS) and dividends per share (DPS) to grow in order for there to be cash
37 to pay the dividends.

38
39 It must be noted that the stockholder does not expect the EPS and the BVPS to
40 grow at a constant rate. The investor realizes there are events that occur from
41 time to time, which affect the earnings. The majority of the time these events can
42 be controlled by management. However, there are events that cannot be
43 controlled by management. Conversely, management at all times can control the
44 dividend policy. The cash dividend can be set at an amount that would not be
45 affected by short term events; thereby, over the long run the cash dividend can
46 grow at a constant rate more than earnings and book value can.

1
2 As a stockholder of a particular company if I were to evaluate the expectation of
3 future dividend growth, the best indication of this undoubtedly would be the
4 dividends that were paid in the past. It is the history of dividend payments that
5 tell me, the stockholder, what the company can support more than any other piece
6 of information. Earnings can go up and down because of short-term influences
7 but the dividends do not go up and down because the company deliberately sets
8 the dividend amount at a steady rate in order to reflect the long term potential to
9 maintain that growth rate.

10
11 If the earnings are not there to sustain the dividend amount eventually, the
12 dividend will be reduced. If the company has cash flow problems created by
13 repeated earnings losses or a need for extensive capital expenditures, the dividend
14 could be suspended completely. Accordingly, the price of a company's stock
15 would no doubt reflect the reduced dividend payment in an adverse way more so
16 than any other indicators, such as EPS or BVPS. The OUCC staff in past causes
17 has concluded that it is proper to consider EPS and BVPS in the calculation of the
18 growth rate. Since earnings per share, book value per share and dividends are all
19 related to one another to some degree, this appears to be a reasonable
20 presumption. However, if the company would dictate its dividend policy solely
21 on EPS and BVPS, which could be erratic and volatile, I am certain the stability
22 of the stock price would be influenced inconsistently.

23
24 Notwithstanding, to somehow believe that the EPS and the BVPS growth rates
25 must be considered in the growth calculation in the DCF model would
26 nonetheless be incorrect and it is contrary to what the financial community
27 believes. This would be an incorrect presumption because the DCF model is
28 designed to focus on dividends only. The model designates that the current stock
29 price of the company in question to be the present value of its future dividends per
30 share, simply because these are the cash flows that the stockholders expect to
31 receive by owning the stock. The model is supposed to capture a fundamental
32 principle of the current financial world, being that cash flows are what determine
33 value. This is probably why the model is referred to as the "Discounted Cash
34 Flow Model". The model clearly does not relate to or make any presumptions
35 about earnings per share or book value per share. Thus, the key consideration in
36 the DCF model is dividends.

37
38 However, even though (as noted previously) I strongly believe that earnings and
39 book value per share should not be included in the calculation of the growth
40 factor, I have included earnings and book value per share in my analysis, because
41 the Commission believes that earnings and book value per share should be
42 considered in the growth rate calculation. I believe the Commission should
43 reconsider its position on this issue for the reasons stated above, (i.e., dividends
44 per share are the most commonly used measure).

1 When using the DCF formula in a regulatory proceeding the model is rearranged
2 as follows:

3
4 $k = (D1 / Po) + g.$
5

6 The Cost of Equity (k) equals the forward dividend yield (D1 / Po) plus the
7 expected growth rate (g) in dividends per share. From this model, one can see
8 that the estimation of the continuing growth rate is critical to the estimation of the
9 Cost of Equity Capital under the DCF model. Like another method known as the
10 Earnings/Price Ratio approach, the DCF approach is based on the current stock
11 value (Po) being the leading or foremost indicator (discounting the future cash
12 flows accruing to that particular stock). The real question to be answered is what
13 capitalization of K must investors be using, given what the current dividends are
14 and what is expected from future dividends, in the pricing of a particular
15 company's stock currently at the level of Po? This would be the rate of return on
16 common equity capital that investors would require from an investment in that
17 security. Thus, the only concern of the investor should be the dividend growth.
18

19 For example in the Earnings/Price Ratio approach, if the price of common stock
20 for Utility A is \$24.00, and it is anticipating earnings of \$4.00 in the next 12
21 months, then the prospective rate of capital formation is 16.67% or (\$4.00 /
22 \$24.00). If the utility earned 16.67% over each of the next six years, it would
23 form \$24.00 of new equity capital. Thus, the annual capital formation of \$24.00
24 at \$4.00 per year is 16.67%.
25

26 In the DCF approach cash flows are divided into the next 12 months cash
27 dividends (D1) and an annual growth rate in those cash flows (g) which yield the
28 stockholder an annual return rate (k) by the equation $k = (D1 / Po) + g$. In effect
29 using the numbers from the Earning/Price Ratio approach we are saying, the
30 market price or Cost of Common Equity is equal to today's price of \$24.00
31 divided into the next 12 month's expected dividends (let us say \$3.00), for annual
32 cash yield on the stock of 12.5%, plus an annual likely growth factor (say) 4% in
33 dividends, to equal 16.5%.
34

35 There are many ways of determining the likely dividend growth, but whatever
36 method is used should be tested against past performance of the company and/or
37 the industry. I used two methods (1) the clustered compound growth method to
38 calculate the five year and 10 year historical growth rates in the dividends per
39 share and earnings per share; (2), we used the least square trends method of
40 dividends over the past 5 to 15 years to support the clustered compound growth
41 method. Value Line, an investment survey company, supports the calculation of
42 the clustered compound growth rates with the following explanation:
43

44 Value Line measures each industrial company's rate of change in
45 sales, cash flow, earnings, dividends and book value on a per share
46 basis for the past ten and five year periods and for estimates five

1 years in the future. Since nonrecurring events or cyclical swings in
2 any one year can distort the growth picture of a company, all rates
3 of change are measured from the average of three base years to the
4 average of three ending years. For example, the ten-year rates of
5 change measured in 1984 compare the average of 1971, 1972 and
6 1973 with the average of 1981, 1982 and 1983. All changes are
7 expressed as annual compound rates over the interval measured.
8 (Please refer to Arnold Bernhard's, How To Use The Value Line
9 Investment Survey, New York: Value Line, Incorporated, pp.57-
10 58.)

11
12 Please refer to **Exhibit ELB-2, Schedule 4b** for these earnings, dividend and
13 book value growth rates using AUS Utility Reports and the financial statements of
14 proxy group members as data sources. For the raw data (from AUS Utility
15 Reports, Standard & Poor's Compustat Services and Morningstar) used to
16 calculate these dividend growth rates, see **Exhibit ELB-2, Schedule 4c**.

17
18 **Q. Please explain how you calculated the historical growth component (g)**
19 **relative to the DCF Model for the AUS proxy group?**

20
21 **A.** My analysis uses the five-year and ten-year historical averages for dividends per
22 share. Please refer to **Exhibit ELB-2, Schedule 4b** for these growth rates.
23 **Exhibit ELB-2, Schedule 4a** represents the current dividend rate based on the
24 six-month average ended December 31, 2006. In addition, I reviewed both
25 Ibbotson's and Morningstar's growth rates, which ultimately I utilized because
26 the growth rates from my analysis of historical earnings, dividends, and book
27 value were unrealistic and thus not applicable.

28
29 **Q. From where did you obtain the data to estimate the long run dividend**
30 **growth rate components (g) of the DCF model?**

31
32 **A.** In our analysis, we used Standard & Poor's Compustat Services data through
33 1996 with updates from AUS monthly reports and the Proxy Group Annual
34 Reports for 1997 through 2006.

35
36 **Q In the DCF analysis, did you consider any other additional information to**
37 **confirm the reasonableness of the growth rates?**

38
39 **A.** No. As I noted earlier, to an investor dividend growth is the most important
40 criterion in the consideration of long-term growth. However because the
41 Commission has ruled in the past that they consider earnings and book value
42 growth to be important, we considered those growth factors as well. The DCF
43 constant growth model, which is used to determine a price of common stock,
44 comes from the basic assumption that stockholders are interested in the dividend
45 yield expected the following year and in future years. Thus, it can be said that the

1 value of the common stock equals the sum of the cash flow that the stock
2 generates. This seems very fundamental to me.

3
4 **Q. Please summarize the results of the DCF analysis.**

5
6 **A.** The historical estimated range for the cost of common equity of earnings,
7 dividends, and book value of the AUS Reports Proxy Group before adjusting for
8 quality of South Haven; using the DCF model is 5.74% to 7.44%, which is below
9 the cost of some of South Haven's long term bank debt, which ranged from 6.50%
10 to 7.98% during the year 2006. After adjusting for size, personal guarantee of the
11 stockholders, and collateralization of affiliated companies' assets, the DCF ranged
12 from **6.24% to 7.94**. The forecast of earnings using Ibbotson's growth rate of
13 9.39% is 13.41% after the aforementioned risk adjustments. A 5-year forecast of
14 dividends and earnings using Morningstar's average growth rate for the Proxy
15 Group of 7.25% is 7.75% after the aforementioned risk adjustments. (See
16 **Exhibit ELB-2, Schedule 4**).

17
18 **Q. Does the DCF model support your estimated cost of equity capital using**
19 **CAPM?**

20
21 **A.** No, because the historical dividends, earnings, and book value average minimum
22 cost of equity rates of 6.72% are just above the risk-free 20-year Treasury Bond
23 average of 4.90% and just slightly less than South Haven's cost of debt of 6.89%.
24 (See **Exhibit ELB-2, Schedules 4 and 2b**). Because of this reason, the DCF
25 Model should not be given any weight in estimating the cost of equity in this
26 cause.

27
28 **Q. What is the quality adjustment that was added to the DCF model calculation**
29 **of the minimum cost of equity?**

30
31 **A.** It is 0.50%, and I believe this quality adjustment is in accordance with the
32 principles of the attraction of capital as set forth by the Hope and Bluefield cases
33 and in conformity with the standard of the "end result doctrine". However, the
34 adjustment is moot because no consideration should be give to the DCF Model in
35 this cause. (See **Exhibit ELB-2, Schedule 4**).

36
37
38 **Q. How did you arrive at the quality adjustment amount?**

39
40 **A.** First, I analyzed a number of performance measurements of a Proxy Group that
41 included all the AUS Water and Wastewater Utilities, which can be found in
42 **Exhibit ELB-2, Schedule 7**.

43
44 The performance measurements included an analysis of the Average Mean,
45 Median, Geometric Mean, Maximum and Minimum of measurements regarding
46 Liquidity Ratios, Profitability Ratios, Leverage Ratios, Sales or Revenue Ratios

1 and Size of Operations and Coverage Ratios including Times Interest Earned of
2 the AUS Reports Proxy Group per the Proxy Group's Financial Statistics and the
3 Audited Financial Statements of 1992 through 2005. The Proxy Group
4 Performance Measurements were compared to South Haven.
5

6 Secondly, I considered the limited service territory, the limited marketability of
7 the common stock and the personal guarantee of the stockholders by Centier
8 Bank. Finally, I considered the fact that Centier required that the stockholders
9 provide additional collateralization for \$5 million debt incurred by South Haven.
10 In 1994, when CoBank loaned South Haven \$3.8 million it did not require any
11 additional collateralization. CoBank did not want to loan additional funds if it
12 had to rely on the creditworthiness of an entity other than South Haven. Centier
13 was willing to loan additional funds with additional collateralization.
14

15 South Haven was unable to qualify for loans with Centier Bank unless South
16 Haven agreed to some special terms, which were identified in commitment letters
17 with Centier Bank. **(See Exhibit ELB-3, which includes the commitment**
18 **letters from past South Haven financing causes: Exhibit ELB-1, Schedule 2**
19 **from Cause No. 42499 and Exhibit ELB-1, Schedule 4 from Cause No.**
20 **42985).** The special terms include personal guarantees from South Haven's
21 stockholders, real estate mortgages on property that is not owned by South Haven
22 and the assignment of a \$1 million life insurance policy on Mr. Saylor. These
23 items were in addition to mortgages and security interests in property owned by
24 South Haven. The quality adjustments for the additional risks are 1.25%.
25

26 **Q. What is your conclusion relative to the Cost of Common Equity in this**
27 **proceeding using the DCF Model?**
28

29 **A.** The Historical DCF minimum Cost of Equity range for Earnings, Dividends, and
30 Book Value is 5.74% to 7.44% for the AUS Proxy Group. The average minimum
31 cost of DCF Cost of Equity for Dividends, Earnings, and Book Value is 6.72%.
32 When utilizing the 5-year Forecast with Ibbotson's growth rate of 9.39%, the
33 minimum cost of equity is 12.91%. After some consideration for quality in the
34 Historical DCF model, the range is 6.24% to 7.94%. It is obvious that what
35 Purdue University's Dr. Lewellen has been saying is true and quite evident as far
36 as the Discounted Cash Flow method is concerned in this Cause.
37

38 Because the minimum historical growth rates for dividends, earnings and book
39 value are low, the range is 5.74% to 7.44%, the discounted average rate of 6.72%
40 is just above that of the risk-free rate of 30-year Treasury Bonds, which is 4.90%
41 for the twelve months ended December 2006. So, historical growth rates in my
42 opinion should be completely ignored in the determination of South Haven's cost
43 of equity. Only the 5-year forecast using Ibbotson's growth rate (the cost of
44 equity rate is 12.91%) should be given any weight in this Cause because it greater
45 than the risk-free rate and the current cost of debt of South Haven. **(See Exhibit**
46 **ELB- 2, Schedule 4).** Using Morningstar growth rate of 7.25%, the cost of

1 equity rate would be 7.75% after a quality adjustment of 0.50%. However, after
2 considering the market to book capitalization ratios, I have determined that the
3 proper DCF Model cost of equity rate to be 10.58%, which includes the quality
4 adjustment of 0.50%.

5
6 **Q. What is your opinion concerning the use of a DCF Model in this Cause?**

7
8 **A.** The DCF Model in most cases produces a lower cost of equity than CAPM, the
9 Fama and French Three-Factor Model, Historical Risk Premium Model, and the
10 Buildup Model. Therefore, if much weight or consideration would be given to the
11 DCF Model it would be favorable to the ratepayers only and confiscatory to South
12 Haven.

13
14 **Q. Are there other approaches to estimating the required return on common
15 capital equity that will assist in supporting the CAPM with an adjustment
16 for size?**

17
18 **A.** Yes, Fama and French's Three Factor Model.

19
20 **Q. What are the reasons you believe that the Fama and French's Three Factor
21 Model is relevant in South Haven's Cause?**

22
23 **A.** The reasons that Fama and French Three Factor Model are relevant in South
24 Haven's cause are best stated by Ibbotson (see page 64 of SBBI Valuation Edition
25 2007).

26
27 Specifically, they found that the return on a firm's cost of equity is
28 negatively related to its size and positively related to its book-to-
29 market ratio. In other words, firms with smaller equity
30 capitalization have higher expected cost of equity, and firms with
31 higher book value relative to market value ratio also have a higher
32 expected cost of equity. This finding suggests a predictive model
33 in which these variables - size and book-to-market ratio - are used
34 (in conjunction with beta) to estimate the expected return or cost of
35 equity capital.

36
37 **Q. What is your conclusion relative to the Cost of Common Equity in this
38 proceeding using the Fama and French Three Factor Model?**

39
40 **A.** Based on Fama and French Three-Factor Model, it can be determined that the
41 Cost of Equity is 11.13% (See Exhibit ELB-2, Schedule 3) which is based upon
42 the equation:

43 $K_I = R_f + (b_I \times ERP) + (s_I \times SMBP) + (h_I \times HMLP)$ plus some additional
44 unsystematic risk.

45 Where:

46 k_i = Cost of Equity;

R_f = Rate on Risk-Free Asset;
 b_I = Market Coefficient in the Fama-French regression;
ERP = Expected Equity Risk Premium, Long-horizon version from Ibbotson Associates *SBB* 2007
Yearbook – Valuation Edition, which is large company stocks total returns less long-term government bond income returns;
 s_I = Small-Minus-Big Coefficient in the Fama-French regression;
SMBP = Expected Small-Minus-Big Risk Premium, estimated as the difference between the historical average annual returns on the small-cap and large-cap portfolios (See Exhibit ELB-2, Schedule 3a);
 H_i = High-Minus-Low Coefficient in the Fama-French regression; and,
HMLP = Expected High-Minus-Low Risk Premium, estimated as the difference between the historical average annual returns on the high book-to-market and the low book-to-market portfolios. (See Exhibit ELB-2, Schedule 3a).

Q. What is the rationale of the Fama and French Three-Factor Model?

A. The idea behind the Fama and French Three-Factor Model is to improve on the CAPM regression by including more than one factor into the regression formula. CAPM is a single factor Cost of Equity model in that the Cost of Equity of the stock is driven by how the stock reacts to movements in the overall market. The addition of the size premium to the CAPM is an attempt to correct the CAPM for its mismeasurement of company size. Fama and French have attempted to address the company size in a different fashion by incorporating it as a factor in the regression equation. They have also added the book-to-market ratio as an additional factor impacting the magnitude of the Cost of Equity.

Q. What was the significant point made by Michael Annin, CFA and a Senior Consultant at Ibbotson Associates, in his article that appeared in the March 1997 issue of Business Valuation Review?

A. Michael Annin, CFA and a Senior Consultant at Ibbotson Associates, pointed out in his article titled "Fama-French and Small Company Cost of Equity Calculations" that appeared in the March 1997 issue of Business Valuation Review that there are many subjects in the field of finance that are open to debate. However, there is one where there is a general consensus. The area where there seems to be a general agreement is in the relationship between size, as measured by equity capitalization, and return. Mr. Annin said:

Historically, small capitalization companies have outperformed large capitalization companies over an extended time period. The relationship between size and return was first noted by Banz (1981). Other studies have been performed that have concluded

1 that over long periods of time, small companies will out-perform
2 large companies. If this is the case, than smaller companies should
3 have larger betas than larger companies in a general sense. If one
4 looks at long periods of time, this is the case.
5

6 Berk (1995) argues that smaller firms should be expected to have
7 higher expected returns because they have higher risk. Berk states
8 that if one holds operating flows constant between two companies
9 with differing levels of risk, the company with greater risk will
10 have a lower market value of equity, and a higher expected return.
11 Using this rationale, one should expect smaller firms to have
12 higher cost of equity than larger firms.
13

14 **Q. Is there another method or approach that will support your CAPM results?**

15
16 **A.** Yes, it is the Historical Risk Premium approach.
17

18 **Q. What is the Historical Risk Premium approach?**

19
20 **A.** The Historical Risk Premium is merely the difference between the historical
21 realized returns on stocks and bonds. As an equation the approach can be
22 expressed as follows:
23

$$K_e = K_d + \text{historical spread between stocks and bonds.}$$

24 Where K_e = cost of equity and

25 K_d = incremental cost of debt.

26 If the current cost of debt is 7.5% and the historical spread between
27 stocks and bonds is 7.1%, then the cost of equity would be 14.6%:

$$K_e = K_d + \text{historical spread between stocks and bonds.}$$

$$= 7.5\% + 7.1\% = 14.6\%.$$

31
32 **Q. How did you determine the historical spread between and bonds?**

33
34 **A.** I used Ibbotson's compilation of the historical returns and historical risk
35 premiums from 1926 to 2006 and compared them to Ibbotson's compilation of
36 long-term treasury bonds for the same period of time.
37

38 **Q. What was the result of the comparison?**

39
40 **A.** The comparison produced a historical risk premium of 6.46%. (See Exhibit ELB-
41 2, Schedule 6 and 6a).
42

43 **Q. So, what is the Cost of Equity based upon using the Historical Risk Premium**
44 **approach?**
45

1 A. 13.42%. This was determined by adding the Historical Risk Premium of 6.56% to
2 South Haven's Weighted Cost of Long-term Debt of 6.86%. (See Schedule
3 ELB-2, Schedule 6).
4

5 Q. Mr. Beatty, is there any other method you used to support your CAPM
6 method?
7

8 A. Yes, the Buildup method.
9

10 Q. Please explain the Buildup model.
11

12 A. The Buildup method is an additive method whereby the return on equity is
13 estimated as the sum of a risk-free rate and one or more risk premiums. Each risk
14 premium is the reward that an investor receives for taking on a specific risk.
15

16 The risk can be stated as follows:
17

$$18 E(R_i) - R_f + RP_m + RP_s + RP_u$$

19
20 Where:
21

22 $E(R_i)$ = Expected (market required) rate of return of security i .
23 R_f = Rate of return available on risk-free security as of the
24 valuation date.
25 RP_m = General equity risk premium for the "market"
26 RP_s = Risk Premium for small size
27 RP_u = Risk premium attributable to the specific company or
28 Specific industry (u stands for unsystematic risk)
29

30 Q. What is the cost of equity for South Haven using the Buildup method?
31

32 A. It is 13.12%. (See Exhibit ELB-2, Schedule 5).
33

34 Q. How were the additives that make up the Buildup method derived?
35

36 A. The risk-free rate was determined by using the Morningstar Long-term
37 Government Bond Yields for the year ended 2006, which was 4.91%. (See
38 Morningstar SBBI Valuation 2007 Yearbook Table B-9 pages 244 and 245.)
39

40 The Equity Risk Premium was determined by using the excess premium of what
41 stocks provide over the investment in governmental securities, i.e. the long-term
42 government bonds total returns as determined by Morningstar, $(R_m - R_f)$. The
43 term $(R_m - R_f)$ can be anticipated to be the average return "premium" that stocks
44 provide over the investment in governmental securities, which is 6.56%.
45

1 The size premium was taken from Morningstar's "Statistics for SIC Code 494 and
2 is the difference between Morningstar's CAPM + Size and CAPM, which is
3 13.10% and 9.22%, for a Small Composite, respectively. Thus, the size premium
4 is 3.88% or (13.10% less 9.22%).
5

6 The Industry Premium was determined to be a negative (2.23%). It was
7 determined by the following Morningstar's formula for Industry Premium
8 $(IRP_i = RI_i \times ERP) - ERP$, where:
9

10 IRP_i = The expected industry risk premium for industry I, or the amount by
11 which investors expect the future return of the industry to exceed that of the
12 market as a whole;

13 RI_i = the risk index for industry I, and

14 ERP = the expected risk premium.
15

16 (See page 39 and 40 of Morningstar's *SBBI Valuation Edition 2007 Yearbook*.)
17

18 **Q. Mr. Beatty you noted earlier that you used the Fama and French, the**
19 **Discounted Cash Flow, Historical Premium Method, the Buildup Method,**
20 **and the Times Interest Earned (TIE) Ratio to test or support the CAPM plus**
21 **size premium, which is 12.10%. Is that correct?**
22

23 **A. Yes.**
24

25 **Q. What was the Cost of Equity using the Fama and French Three Factor**
26 **Model?**
27

28 **A. The Cost of Equity using the Fama and French Three-Factor Model was 11.13%.**
29 **(See Exhibit ELB-2, Schedule 3).**
30

31 **Q. What was the Cost of Equity using the Discounted Cash Flow method?**
32

33 **A. Because the historical dividends, earnings, and book value methods produced a**
34 **cost of equity below or nearly less than the average cost of South Haven's Debt**
35 **and just above the risk-free rate and because the traditional DCF Model does not**
36 **consider the market capitalization, I used the 5-year Forecasted Method, which**
37 **utilized Morningstar growth rate of 9.39%, and cost of equity rate is 13.41%. I**
38 **averaged Morningstar's DCF cost of equity rate of 7.75%, which resulted from**
39 **using a growth rate of 3.91%. The average of Morningstar's cost of equity DCF**
40 **rates resulted in a 10.58% DCF cost of equity rate, which I determined to be**
41 **understated because of no consideration for the market capitalization, which is**
42 **2.50 to 1 over the book capitalization. When this was considered, the DCF cost of**
43 **equity rate was determined to be 13.915% (See Exhibit ELB-2, Schedules 4 and**
44 **17).**
45

46 **Q. What was the Cost of Equity using the Buildup Method?**

- 1
2 **A.** The Cost of Equity derived from the Buildup Method is 13.12%. (See ELB-2,
3 **Schedule 5).**
4
- 5 **Q.** **What was the Cost of Equity using the Historical Premium Method?**
6
- 7 **A.** The Cost of Equity result from the Historical Premium Method is 13.42%. (See
8 **Exhibit ELB-2, Schedule 6).**
9
- 10 **Q.** **You have calculated the CAPM with Size Premium to be 12.10%, the Fama**
11 **and French Three Factor Model to be 11.13%, the Discounted Cash Flow**
12 **Method, using Morningstar's growth rate adjusted for market capitalization**
13 **of 2.50 to 1, to be 13.92%, the Buildup Method to be 13.12%, and the**
14 **Historical Premium Method to be 13.42%. What does this signify in regard**
15 **to South Haven's Cost of Equity in this Cause?**
16
- 17 **A.** This signifies or represents that South Haven Cost of Equity should be somewhere
18 within the range of 11.13% to 13.92% depending upon what method an analyst
19 wanted to utilize. Thus, the 12.10% Cost of Equity, which we used in this Cause,
20 appears to be reasonable and conservative.
21
- 22 **Q.** **Can the recommended 12.10% Cost of Equity be tested?**
23
- 24 **A.** Yes, see the Summary of Cost of Equity. (See ELB-2, Schedule 1). The
25 summary of Cost of Equity demonstrates that the recommended 12.10% cost of
26 equity is not only within the range of several different cost of equity calculation
27 methods but is below the median and mean of those methods. This demonstrates
28 that 12.10% is a reasonable cost of equity.
29
- 30 **Q.** **What other tests can be performed to determine the reasonableness of your**
31 **estimated cost of equity at 12.10%?**
32
- 33 **A.** As we noted earlier the results of any recommendation should be able to be tested
34 against the principles of law set forth in the Hope and Bluefield cases. The
35 principles of law that we reference are how likely is the credit to be maintained
36 and the financial integrity preserved and how likely is it that capital can continue
37 to be attracted under reasonable terms. The measurement of interest and fixed-
38 charge coverage can be used to test the reasonableness of the estimated cost of
39 equity. We can compare coverage ratio generated by the results of a 12.10% Cost
40 of Equity for South Haven to the Proxy Groups coverage ratios.
41
- 42 **Q.** **How does South Haven's Times Interest Earned (TIE) Ratio generated from**
43 **a 12.10% cost of equity compare to the Proxy Group's TIE Ratio?**
44
- 45 **A.** When the original cost rate base of \$8,553,291 is multiplied times a Weighted
46 Cost of Capital of 8.4843%, it results in a Pro-forma Net Operating Income of

1 \$725,683. This Pro-forma Net Operating Income will produce a Pro-forma TIE
2 Ratio of 2.73, which is 0.66 (3.39 minus 2.73) less than the Proxy Group Average
3 for 2005. (See Exhibit ELB-1, Schedule 1, Schedule 7, and Schedule 10 and
4 Exhibit ELB-2, Schedule 2d and Schedule 2e).

5
6 **Q. How does South Haven Debt Service Coverage (DSC) Ratio compare to that**
7 **of the Proxy Group?**

8
9 **A.** The Pro-forma Net Operating Income generated above produces a DSC of 1.96,
10 which is 0.96 (2.92 minus 1.96) less when compared to the Proxy Group's DSC
11 average of 2.92 for 2005. (See Exhibit ELB-1, Schedule 1 and Exhibit ELB-2,
12 Schedule 2e).

13
14 **Q. Does the Coverage Ratios, TIE and DSC, test indicate that the 12.10%**
15 **estimated return on common equity is reasonable?**

16
17 **A.** Yes and no. South Haven's Pro-forma TIE Ratio of 2.73 is 0.66 or 19% less than
18 the Proxy Group's 3.39 TIE Ratio, and South Haven's Pro-forma DSC Ratio of
19 1.96 is 0.96 or 32.8% less than the Proxy Group's 2.92 DSC Ratio. As an analyst,
20 I am concerned about South Haven's TIE and DSC Ratios being substantially less
21 than the Proxy Group. This indicates to me that possibly the cost of equity is
22 understated. There should not be such a disparity of South Haven's TIE and DSC
23 Ratios with the Proxy Group. However, because of management's concern about
24 the sewer rate being as high as it is, it has decided the return on common equity is
25 reasonable in this cause.

26
27 The covenant with Centier Bank requires that South Haven petition the
28 Commission for a rate increase when the DSC Ratio is at 1.50. South Haven's
29 Pro-forma DSC Ratio will be at 1.96 if its rate increase, rate base, and net
30 operating income calculations are granted. When regulatory lag is considered, it
31 appears as though even the 1.96 DSC Ratio may be too low. The financial
32 integrity of South Haven may be in question from a DSC Ratio point of view;
33 thereby, the financial integrity may not be maintained in accordance with the
34 Hope and Bluefield cases if the DSC Ratio is at 1.96.

35
36 According to the determining standards essential to the notion of fair return as put
37 forth by the Hope and Bluefield cases, the return allowed by the Commission
38 must be such as:

- 39
40 1. to permit South Haven to attract capital and maintain its financial
41 integrity, and
42 2. to be comparable with returns on similar risk investments.
43

44 It is clear that Return on Equity and Interest Coverage, which is a key standard
45 used by capital markets in regard to the attraction of debt capital, are interrelated.
46 A Return on Equity that produces an inadequate interest coverage ratio,

1 jeopardizes debt capital attraction. For example, if the interest or debt coverage
2 implied by a recommended Return on Equity is below current bond rating
3 benchmarks, then a weak coverage would almost guarantee a further downgrading
4 of company's bonds, particularly if interest and or debt coverage were already
5 marginal. This can be further detrimental if the company is seeking to spend a
6 substantial amount on a construction expenditure program, which requires
7 external financing in a volatile and quality-conscious market. If the interest or
8 debt coverage ratio implied by any Cost of Equity estimate that is well below that
9 of any of its peers, then this should attest to the inadequacy of the estimate. As a
10 result, existing bond or debt holders would be inflicted a capital loss, and the Cost
11 of Capital, hence the ratepayers' burden, would increase. This is in direct
12 violation of the fundamental doctrine of capital attraction and financial integrity,
13 which was established by the landmark Hope and Bluefield cases.

14
15 As we have repeatedly stated in this Cause and other South Haven causes, the
16 essence and the ultimate test of the validity of a Rate of Return estimate is
17 whether it will permit the South Haven to attract capital on reasonable terms and
18 maintain the company's financial integrity.

19
20 There are many aspects and factors that determine a utility's financial integrity.
21 The performance measurements in **Exhibit ELB-2, Schedule 7** are among the
22 many factors to be considered when evaluating the financial integrity of South
23 Haven. The concept of financial integrity is changeable and encompasses several
24 considerations, and no one single performance measurement can secure the
25 adequacy of financial integrity. However, the Return on Equity should certainly
26 be designed at a minimum to keep the stock price at competitive levels. This was
27 not the case when South Haven was coerced by the OUCC to agree to a stipulated
28 agreement, which was reluctantly approved by the Commission in Cause No.
29 39667. South Haven eventually sold its water utility substantially below market
30 value, which resulted in the confiscation of assets from the stockholders of South
31 Haven.

32
33 The Return on Equity should also be high enough to produce interest and debt
34 coverage with the best possible bond rating.

35
36 Both debt and equity capital attraction and financial integrity standards must be
37 fulfilled in determining a fair rate of return. Despite deterioration in credit
38 standing, a utility may be able to attract debt and equity capital temporarily, but at
39 prohibitive costs and under favorable terms. Eventually, the utility will face
40 capital funds rationing and/or costs of financing will become completely
41 prohibitive, and the utility will no longer be able to attract capital at reasonable
42 prices.

43
44 To verify the reasonableness of the estimated Cost of Equity the coverage implied
45 TIE Ratio of a utility can be compared to a Proxy Group. The TIE Ratio of the
46 Proxy Group can be used to determine what the forecasted Cost of Equity of a

1 utility would be using the embedded cost of the utility's debt and preferred stock,
2 if any. As we stated earlier the equation used would be:

3
4
$$TIE = (W_d K_d) + [(W_p K_p) / (1 - T)] + [W_e K_e / (1 - T)]$$

5 Divided By $W_d K_d$
6

7 Where W_d , W_p , and W_e represent the percentage of debt and preferred and
8 common stock and where K_d , K_p , and K_e are embedded cost of debt and preferred
9 and common stock and where T is the tax rate. (See Exhibit ELB-2, Schedule
10 2d).

11
12 The average TIE Ratio of the Proxy Group in 2005 was 3.39. Consequently, for
13 South Haven to generate a 3.39 TIE Ratio in 2006, it would have required South
14 Haven to have earned a 13.92% Return on Equity. (See Exhibit ELB 2,
15 Schedule 2d and Schedule 2e).

16
17 The average DSC Ratio of the Proxy Group in 2005 was 2.92. Consequently, for
18 South Haven to generate a 2.92 DSC Ratio, it would have required that South
19 Haven produce a Return on Equity much greater than 12.10%.

20
21 **Q. How is the 12.10% estimated cost of equity more than reasonable and if**
22 **anything, it is conservative?**

23
24 **A.** It is generally known within the financial community that small companies' stock
25 generally produces a higher return than larger companies stock because of the
26 higher risk. Two independent studies support this position.

27
28 One is the Ibbotson Associates study and the other is Price Waterhouse study
29 written by Roger Grabowski and David King, which can be found with *Standard*
30 *and Poor's Corporate Value Consulting Risk Premium Report*, the New York
31 Stock Exchange Summary Statistics of Annual Returns (1926 to 2003), which can
32 be found on page 134 *Ibbotson's SBBI Valuation Edition 2004 Year Book*.

33
34 **Q. After determining that the Cost of Equity is fair and reasonable, what is the**
35 **overall weighted cost of capital, which can be used as a principal factor in**
36 **determining fair rate of return that will be applied to rate base?**

37
38 **A.** The weighted cost of capital is 8.484%. (See Exhibit ELB-1, Schedule 11).

39
40 **SUMMARY OF SCHEDULES OF EXHIBIT ELB-2**

41
42 **Q. Would you please summarize the schedules in Exhibit ELB-2.**

43
44 **A.** Yes, the schedules are as follows:

45
46 **Schedule 1** is the Cost of Equity Summary.

1
2 **Schedule 2** is the Capital Asset Price Model Plus Size Method, which is the
3 primary method used to determine the Cost of Equity.
4

5 **Schedule 2a** is the betas of the Proxy Group.
6

7 **Schedule 2b** is the Average Yields On Long Term Treasury Bonds for the year
8 ended December 31, 2006.
9

10 **Schedule 2c** is the Differences Between The Annual Rates of Return on a
11 Diversified Portfolio of Common Stocks and the Annual Rates of Return From
12 Holdings of U.S. Treasury Bonds From 1926 – 2006.
13

14 **Schedule 2d** is a comparison of the Proxy Group's Times Interest (TIE) Ratio to
15 determine the reasonableness of South Haven's Cost of Equity.
16

17 **Schedule 2e** is a comparison of the Proxy Group's and South Haven's Times
18 Interest Earned Ratio and Debt Service Coverage Ratio.
19

20 **Schedule 3** is the Fama and French Three-Factor Model, which was used to
21 support the Cost of Equity in this Cause.
22

23 **Schedule 3a** is the data used in the Fama and French Three-Factor Model.
24

25 **Schedule 4** is Discounted Cash Flow Model, which was used to support the Cost
26 of Equity in this Cause.
27

28 **Schedule 4a** is the Six-Month Dividend Yields of the Proxy Group.
29

30 **Schedule 4b** is the Five-year and Ten-year Historical Growth Rates of Dividends,
31 Earnings, and Book Value of the Proxy Group.
32

33 **Schedule 4c** is the Earnings, Dividends, and Book Value per share data for the
34 Proxy Group from 1993 to 2005.
35

36 **Schedule 4d** is the Morningstar 5-year dividend and sustainable growth rate.
37

38 **Schedule 5** is the Buildup Method for Cost of Equity, which is used to support the
39 Cost of Equity in this Cause.
40

41 **Schedule 6** is the Historical Risk Premium Method for Cost of Equity, which is
42 used to support the Cost of Equity in this Cause.
43

44 **Schedule 6a** is the schedule of differences between the Annual Rates of Return
45 on a Diversified Portfolio of Common Stocks and the Annual Rates of Return
46 from Holdings of U.S. Treasury Bonds from 1926 - 2006.

1
2 **Schedule 7** is certain Performance Measurements of the Proxy Group and a
3 comparison of them to South Haven's performance measurements.
4

5 **Schedule 8** is Comparison of Operating Expense of Proxy Group to South Haven.
6

7 **Schedule 9** is a Comparison of the Proxy Group Dividends Paid to South Haven
8 Dividends Paid.
9

10 **Schedule 10** is the Business Risk Comparison of the Proxy Group and South
11 Haven.
12

13 **Schedule 11** is the Comparison of Long-term Debt as a Percent of Total
14 Capitalization of the Proxy Group to South Haven.
15

16 **Schedule 12** is an analysis of the additions to Shareholders' Equity Capital of
17 South Haven.
18

19 **Schedule 13** is an analysis of South Haven's Net Income from 1984 to 2006.
20

21 **Schedule 14** is Ibbotson's Statistics for SIC Code 494.
22

23 **Schedule 15** is a hypothetical example of how the DCF Model misrepresents the
24 cost of equity rate when the market value is greater or less than a 1 to 1 ratio of
25 the book value.
26

27 **Schedule 16** is the Market to Book Value ratio of the Proxy Group for the twelve
28 months ending December 2006.
29

30 **Schedule 17** is an analysis of what the DCF Cost of Equity Rate would be if the
31 Market to Book capitalization ratio of the Proxy Group would be considered.
32

33 **Q. Does this conclude your fair rate of return and cost of equity testimony?**
34

35 **A.** Yes.
36

37 **ACCOUNTING MATTERS**
38

39 **Q. Mr. Beatty, what is the test period you used in calculating revenue**
40 **requirements for South Haven Sewer Works, Inc.?**
41

42 **A.** The twelve months ending December 31, 2006.
43

44 **Q. What is the Fair Value Rate Base using Original Cost Rate Base**
45 **methodology of South Haven's Plant In Service at December 31, 2006, with**
46 **additions and adjustments in this Cause?**

1
2 A. The fair value rate base of South Haven at December 31, 2006, with adjustments,
3 is \$8,553,291. (See Exhibit ELB-1, Schedule 10). This amount reflects the fair
4 value of the plant in service plus any net additions and adjustments made by
5 South Haven.
6

7 Q. What do you mean by the term "net additions"?
8

9 A. Net additions are those additions to Plant in Service that are fixed known and
10 determinable to ten days prior to the evidentiary hearing. For the purposes of this
11 cause, we have reconciled the additions, retirements and transfers from the test
12 year, December 31, 2004, in the previous rate case, Cause No. 42822 through to
13 the present. (See Exhibit ELB-1, Schedule 12).
14

15 Q. What are the net additions made from December 31, 2004, to the present?
16

17 A. The net additions, retirements and transfers from December 31, 2004, the test year
18 in South Haven's last rate case, Cause No. 42822, to present, are shown in
19 Exhibit ELB-1, Schedule 12.
20

21 Q. Mr. Beatty, is it possible there could be more additions to Plant In Service
22 and Rate Base from the time you file your testimony until ten days prior to
23 the evidentiary hearing?
24

25 A. Yes. South Haven is filing this case using the minimum standard filing
26 requirements pursuant to 170 IAC 1-5-5 to include in rate base major projects that
27 are used and useful ten days prior to the evidentiary hearing in this matter.
28

29 Q. Mr. Beatty, what do you mean by the statement "there could be deletions
30 from Plant in Service as well?"
31

32 A. The OUCC could make adjustments that they believe are not fixed, known, and
33 determinable or not justified. We would have to present the essential arguments
34 to the Commission to refute or rebut the OUCC determinations.
35

36 **NET OPERATING INCOME AND REVENUE REQUIREMENT**
37

38 Q. What is the Net Operating Income required to satisfy the necessary Revenue
39 Requirement?
40

41 A. The Net Operating Income result is \$725,683 and the necessary Revenue
42 Requirement is \$3,585,472. (See Exhibit ELB-1, Schedule 1 and 7).
43

44 Q. How was the Net Operating Number determined?
45

1 A. The weighted cost of capital of 8.484% was multiplied times the rate base of
2 \$8,553,291 and the result was \$725,683. (See Exhibit ELB-1, Schedule 10).

3
4 Q. What would be the rates charged to the various classes of customers, who are
5 residential, commercial and hauled waste?
6

7 A. The residential flat rate would be \$70.71 per month. The commercial rates would
8 vary depending upon the volume of water used each month. Lastly, the hauled in
9 waste rates would be increased to a price floor of 6.51 cents per gallon. South
10 Haven requests that the regulatory treatment for hauled-in waste rates be the same
11 as approved in prior Causes: South Haven may adjust the price so long as the
12 price does not fall below the price floor of 6.51 cents per gallon.
13

14 Q. What does this revenue increase represent for residential customers?
15

16 A. It represents an increase from \$64.95 per month to \$70.71 per month for a single-
17 family residence.
18

19 **ACCOUNTING PRESENT RATE AND PRO-FORMA ADJUSTMENTS**
20

21 Q. You have made a number a number of present rate adjustments in Exhibit
22 ELB-1, Schedule 7. Please explain what these adjustments represent.
23

24 A. Each present rate adjustment, or journal entry, represents a change that must be
25 made to the test-year figures in order to arrive at a pro-forma, present rate year. I
26 will discuss these journal entries below.
27

28 Q. Please explain Journal Entry 1.
29

30 A. Journal Entry 1 is an adjustment to Revenues for the growth of customers during
31 the test year, which increased Revenues \$58,650.
32
33

34 Q. Please explain adjustment Journal Entry 2.
35

36 A. Journal Entry 2 is an adjustment to Salaries and Wages, which included a cost of
37 living adjustment of 2.7%, which increased Salaries and Wages Expense \$33,505.
38 There are a total of 21 employees, which includes 18 full time employees and 3
39 part time employees. There are 5 Operators, 2 General Maintenance, 7 Collection
40 System Maintenance, 1 Customer Relation Manager, 2 part time Customer
41 Relation employees, 1 part time Shut-off Notice employee, 1 General Manager, 1
42 Chief Executive Officer, and 1 Chief Financial Officer.
43

44 Q. Please explain adjustment Journal Entry 3.
45

1 A. Journal Entry 3 is an adjustment to Laboratory Expense, which increased expense
2 \$33,524. South Haven has a contract with an affiliated company, Utility Service
3 Corp. ("USC"). In order to establish a market price for laboratory services South
4 Haven as received bids through a request for proposal process beginning in Cause
5 No. 41903 for which an order was issued June 5, 2002. The last time South
6 Haven received bids for laboratory services was August 23, 2002. In this case,
7 the bids were requested to be received by February 2, 2007. One bid was
8 received and that bid was USC's. The bid receipt and opening was witnessed by
9 Glenn E. Johnson, CPA and South Haven's outside auditor. (See **Exhibit ELB-4**,
10 which is the Affidavit of Mr. Johnson.)
11

12 **Q. Please explain adjustment Journal Entry 3a.**
13

14 A. Journal Entry 3a is an adjustment to Operations Expense in the amount of
15 \$19,609. South Haven has a contract with an affiliated company, USC, which
16 came about as a result of an investigation by the Commission, Cause No. 41410.
17 South Haven during the test year utilized is emergency agreement with USC to
18 provide a Chief Operator. The use of an outside Chief Operator resulted from the
19 dismissal of South Haven Chief Operator in the fall of 2005. Because South
20 Haven had lost three operators to US Steel in the summer of 2005, it had no one
21 to promote to the position of Chief Operator consequently it had to fall back on its
22 reliance with USC. Management decided in this Cause to solicit Request for
23 Proposals for an operator to run its SBR treatment facility. Bids were requested
24 to be received by March 2, 2007. Two bids were received. One bid was received
25 from Midwest Environmental Management Services, LLC of Godfrey, Illinois
26 and USC. The bid receipt and opening was witnessed by Glenn E. Johnson, CPA
27 and South Haven's outside auditor. (See **Exhibit ELB-5**, which is the Affidavit
28 of Mr. Johnson.)
29

30 **Q. Please explain adjustment Journal Entry 4.**
31

32 A. Journal Entry 4 is an adjustment of \$2,550 for an increase in sludge removal
33 service provided by Merrill Brothers of Kokomo, Indiana. The adjustment is for
34 the anticipated price increase in the Pro-forma year.
35

36 **Q. Please explain adjustment Journal Entry 5.**
37

38 A. Journal Entry 5 is an adjustment of \$19,488, which reduces expense for the cost
39 of Express Personnel during the test year. The 2 customer service representatives
40 from Express Personnel, Ms. Darla Drew and Ms. Michelle Graves have become
41 part time employees of South Haven.
42

43 **Q. Please explain adjustment Journal Entry 5a.**
44

45 A. Journal Entry 5a is an adjustment increase of \$400 for uniform price increase,
46 which will occur during the Pro-forma Year.

- 1
2 **Q. Please explain adjustment Journal Entry 6.**
3
4 **A.** Journal Entry 6 is a decrease in expense of \$2,393 for Property and General
5 Liability Expense.
6
7 **Q. Please explain adjustment Journal Entry 7.**
8
9 **A.** Journal Entry 7 is an adjustment increase of \$7,080 for Health Insurance and
10 Pension Expense.
11
12 **Q. Please explain adjustment Journal Entry 8.**
13
14 **A.** Journal Entry 8 is an adjustment to increase expense for worker's compensation
15 expense in the amount of \$1,490.
16
17 **Q. Please explain adjustment Journal Entry 9.**
18
19 **A.** Journal Entry 9 is an adjustment to increase expense for the amortization of rate
20 case expense in the amount of \$9,554. A review of the previous rate cases
21 indicates that we did not stipulate to the proper amount of legal expense. We
22 have adjusted the hours to properly account for an expense if the case is settled
23 and have added some hours in the event that this cause is litigated.
24
25 **Q. Please explain adjustment Journal Entry 10.**
26
27 **A.** Journal Entry 10 is an adjustment to increase administrative expense \$6,515 that
28 will be incurred with an affiliated company, Reliable Development Corp. The last
29 increase occurred in March of 2005.
30
31 **Q. Please explain adjustment Journal Entry 10a.**
32
33 **A.** Journal Entry 10a is an adjustment to increase Water Expense in the amount of
34 \$2,029, which based upon an estimated increase of 8%. At the time of the filing
35 of this rate case, the Indiana-American rate case in Cause No. 43187 has not been
36 resolved. If the increase is significantly different then our estimate, this can be
37 resolved at the hearing of our case-in-chief.
38
39 **Q. Please explain adjustment Journal Entry 10b.**
40
41 **A.** Journal Entry 10b is an adjustment to increase Postage Expense in the Amount of
42 \$636, which is a 5% increase effective May 15, 2007.
43
44
45 **Q. Please explain adjustment Journal Entry 11.**
46

- 1 A. Journal Entry 11 is an adjustment to increase IURC fees \$859 based upon the
2 .1172179% established by the Commission for the year 2006.
3
- 4 **Q. Please explain adjustment Journal Entry 12.**
5
- 6 A. Journal Entry 12 is an adjustment to increase Depreciation expense \$5,491.
7
- 8 **Q. Please explain adjustment Journal Entry 13.**
9
- 10 A. Journal Entry 13 is an adjustment to increase FICA and Medicare Expense in the
11 amount of \$3,490 based upon the pro-forma adjustment to Wages and Salaries
12 Expense.
13
- 14 **Q. Please explain adjustment Journal Entry 14.**
15
- 16 A. Journal Entry 14 is an adjustment to decrease State and Federal Unemployment
17 Expense in the amount of \$338 based upon the pro-forma adjustment to Wages
18 and Salaries Expense.
19
- 20 **Q. Please explain adjustment Journal Entry 15.**
21
- 22 A. Journal Entry -15 is an adjustment to decrease Property Tax Expense in the
23 amount of \$3,848 based upon the tax rate of 2006 payable 2007 and the assessed
24 value at December 31, 2005. This can be updated at the time the OUCC audits
25 the books and records of South Haven to show the assessed value at December
26 31, 2006.
27
- 28 **Q. Please explain adjustment Journal Entry 15a.**
29
- 30 A. Journal Entry 15a is an adjustment to decrease Utility Receipts Tax in the amount
31 of \$40.
32
- 33 **Q. Please explain adjustment Journal Entry 16**
34
- 35 A. Journal Entry 16 is an adjustment to increase State Income Tax in the amount of
36 \$889.
37
- 38 **Q. Please explain adjustment Journal Entry 17.**
39
- 40 A. Journal Entry 17 is an adjustment to increase Federal Income Tax in the amount
41 of \$27,753.
42
- 43 **Q. You also make a number of Pro-forma Adjustments in Exhibit ELB-1,**
44 **Schedule 7, Column C. Please explain Pro-forma Adjustment (a).**
45

1 A. Pro-forma Adjustment (a) is an adjustment to increase revenues by \$283,137 for a
2 Revenue Requirement of \$3,585,472.

3
4 Q. Please explain Pro-forma Adjustment (b).

5
6 A. Pro-forma Adjustment (b) is an adjustment to increase IURC fees in the amount
7 of \$332.

8
9 Q. Please explain Pro-forma Adjustment (c).

10
11 A. Pro-forma Adjustment (c) is an adjustment to increase Utilities Receipts Tax
12 Expense in the amount of \$3,964.

13
14 Q. Please explain Pro-forma Adjustment (d).

15
16 A. Pro-forma Adjustment (d) is an adjustment to increase State Income Tax Expense
17 in the amount of \$23,702.

18
19 Q. Please explain Pro-forma Adjustment (e).

20
21 A. Pro-forma Adjustment (e) is an adjustment to increase Federal Income Tax
22 Expense in the amount of \$86,748.

23
24 **SUMMARY OF SCHEDULES OF EXHIBIT ELB-1**

25
26 Q. Would you summarize the Schedules contained in Exhibit ELB-1.

27
28 A. Yes, the Schedules are as follows:

29
30 **Schedule 1** is the Revenue Requirement, the Pro-forma Times Interest Ratio, the
31 Pro-forma Debt Service Coverage Ratio, and the Gross Revenue Conversion
32 Factor.

33
34 **Schedule 2** is a Comparative Balance Sheet for the years ended December 31,
35 2006, which is the test year, 2005 and 2004.

36
37 **Schedule 3** is a Comparative Income Statement for the years ending December
38 31, 2006, which is the test year, 2005 and 2004.

39
40 **Schedule 4** is a Comparative Detail of Operating Revenues for the years ending
41 December 31, 2006, which is the test year and 2004, which was the test year for
42 South Haven's last rate case, Cause No. 42822.

43
44 **Schedule 5** is a Comparative Detail of Operating Expenses for the years ending
45 December 31, 2006, which is the test year and 2004, which was the test year for
46 South Haven's last rate case, Cause No. 42822.

Schedule 6 is a Comparative Detail of Pro-forma Operating Expense for the test year ending December 31, 2006, compared to the Pro-forma Operating Expense year ended December 31, 2004, which was stipulated in Cause No. 42822.

Schedule 7 is Pro-Forma Adjusted Income Statement illustrating the revenue increase proposed in this Cause.

Schedule 8 is the Detail of Present Adjustments for the proposed rate increase.

Schedule 9 is the Detail of Proposed Adjustments for the proposed rate increase.

Schedule 10 is the detail of the items of Original Cost Rate Base.

Schedule 11 is the calculation of South Haven's Weighted Cost of Capital.

Schedule 12 is the reconciliation of the Plant in Service from December 31, 2004, the test year of the previous rate case, Cause No. 42560, to the present or ten days prior to the evidentiary hearing in this Cause.

MINIMUM STANDARD FILING REQUIREMENTS

Q. Petitioner filed its case under 170 IAC 1-5-1 et. seq. (the Minimum Standard Filing Requirements), correct?

A. Yes.

Q. Is your testimony Petitioner's case-in-chief for purposes of 170 IAC 1-5-1 et. seq.?

A. Yes.

Q. Please identify each component of Petitioner's case-in-chief required in 170 IAC 1-5-6.

A. Certainly. The table below matches the subsection of 170 IAC 1-5-6 and its corresponding case-in-chief requirement to the portion of my testimony or exhibits where the information can be found.

(1) Comparative Balance Sheet	ELB-1, Schedule 2
Comparative Income Sheet	ELB-1, Schedule 3
(2) Revenue Requirement	ELB-1, Schedule 1 and 7
(3) Net Operating Income	
(A) Financial Statements	ELB-1, Schedule 7, Column A
(B) As adjusted	ELB-1, Schedule 7, Columns C & E
(4) Rate Base	

(A) Financial Statements	ELB-1, Schedule 10
(B) As adjusted	ELB-1, Schedule 10
(5) Capital Structure & Cost of Capital	ELB-1, Schedule 11
(6) Gross Revenue Conversion Factor	ELB-1, Schedule 1
(7) Effective Income Tax Rate	40.08% ELB-1, Schedules 1 and 7

Q. In regard accounting matters, does this conclude your testimony?

A. Yes.

CUSTOMER NOTICE

Q. Has or will South Haven comply with the notice requirements of 170 IAC 8.5-2-6(c)?

A. South Haven will comply with the provision by sending notice within 45 days of the date of its Verified Petition was filed and before the public hearing in this Cause. The notice will fairly summarize the nature and extent of the proposed changes. South Haven will submit evidence that it has provided the required notice.

Q. Does this conclude your testimony at this time?

A. Yes.

EXHIBIT ELB-1
Schedules 1 through 12

South Haven Sewer Works, Inc.
Pro-forma Recommended Rate Increase
and
Gross Revenue Conversion Factor

Line No.	Description	Original Cost Rate Base
1	Rate Base	\$8,553,291
2	Times: Weighted Cost of Capital	8.4843%
3	Net Operating Income	<u>725,683</u>
4	Less: Adjusted Net Operating Income Present Rates	\$557,288
5	Increase (Decrease) Net Operating Income	<u>168,395</u>
6	Times: Revenue Conversion Factor	1.68138599
7	Pro-forma Revenue Increase	<u>\$283,137</u>
8	Current Residential Rate	\$64.95
9	Times: Percent Increase	108.86%
10	Proposed Rate Increase	<u>\$70.71</u>
11	Current Waste Hauler Rate	\$0.0598
12	Times: Percent Increase	108.86%
13	Proposed Rate Increase	<u>\$0.06510</u>
14	Times Interest Earned Ratio	
15	Net Income Operating Income	725,683
15	Income Tax Expense	<u>247,206</u>
16	Total	\$972,889
16	Interest Expense	\$356,090
17	Times Interest Earned Ratio	2.73
18	Debt Service Coverage Ratio	
19	Net Income Operating Income	\$725,683
20	Depreciation Expense	271,852
21	Amortization Expense	30,042
22	Amortization of CIAC	<u>(5,647)</u>
23	Total	\$1,021,930
24	Interest Expense	\$356,090
25	Current Portion of Long-term Debt	<u>164,827</u>
26	Total	520,917
27	Debt Service Coverage Ratio	1.96

**South Haven Sewer Works, Inc.
Pro-forma Recommended Rate Increase
and
Gross Revenue Conversion Factor**

Revenue Conversion Factor Calculation

1	Gross Revenue Change	100.00000000%
2	IURC Fee	0.11721790%
3	Sub-total	<u>99.88278210%</u>
4	Utility Receipts Tax at 1.4%	1.39835895%
5	Sub-total	<u>98.48442315%</u>
6	Adjusted Gross Income Tax at 8.5%	8.37117597%
7	Sub-total	<u>90.11324718%</u>
8	Federal Income Tax at 34%	30.63850404%
9	Change In Net Operating Income	<u>59.47474314%</u>
10		
11	Revenue Conversion Factor = $1/0.5947474314$	1.68138599
	Effective Tax Rate	40.08%

South Haven Sewer Works, Inc.
Comparative Balance Sheet
Years Ended

Line No.		Test Year 12/31/06	Fiscal Year 12/31/05	Test Year and Fiscal Year 12/31/04
	Assets			
1	Utility Plant In Service - Sewer	\$11,015,823	10,571,829	\$8,930,930
2	Less Accumulated Depreciation - Sewer	(2,293,239)	(2,026,877)	(1,817,806)
3	Net Plant In Service	8,722,584	8,544,952	7,113,125
4	Construction Work In Progress	16,922	13,495	194,118
5	Other Assets and Investments	349,379	367,002	367,000
6	Deferred Debits	17,073	37,561	37,946
	Current Assets			
7	Cash and Temporary Investments	221,391	131,994	325,856
8	Accounts Receivable Net - Trade	310,379	287,621	263,315
9	Unbilled Revenues	162,407	157,899	144,644
10	Notes and Interest Receivable	724	1,840	1,950
11	Accounts Receivable -Affiliates	240,690		
11	Materials and Supplies	21,649	24,499	13,697
12	Prepaid Expenses	17,292	17,031	8,646
13	Total Current Assets	974,532	620,884	758,107
14	Total Assets	10,080,491	9,583,894	8,470,295

South Haven Sewer Works, Inc.
Comparative Balance Sheet
Years Ended

Line No.		Test Year 12/31/06	Fiscal Year 12/31/05	Test Year and Fiscal Year 12/31/04
	Liabilities and Stockholder's Equity			
1	Long-Term Debt - Notes Payable	5,025,110	4,972,317	4,159,803
	Stockholders Equity			
2	Common Stock	1,004,901	1,004,901	1,004,901
3	Paid In Capital	1,057,648	1,035,459	1,035,459
4	Unappropriated Retained Earnings	1,554,838	1,289,320	1,023,584
5	Total Stockholder's Equity	3,617,387	3,329,680	3,063,944
	Current Liabilities			
6	Accounts Payable	134,645	41,636	61,626
7	Accounts Payable - Affiliates		20,519	201,236
8	Notes Payable	164,827	148,251	160,029
9	Customer Deposits	112,742	118,032	111,821
10	Accrued Interest Expense	16,754	15,670	12,288
11	Accrued Taxes	64,417	58,853	52,466
12	Accrued Payroll and Pension Expense	15,385	22,836	15,824
13	Other Accrued Expenses	24,326	11,005	11,135
	Current EPA Liability	50,000	73,500	50,000
14	State Income Tax Payable			
15	Federal Income Tax Payable			
16	Total Current Liabilities	583,096	510,302	676,425
17	Other Deferred Credits			
18	Long-term EPA Liability		50,000	100,000
19	Deferred Income Taxes - Liberalized Depreciation	513,679	405,564	286,762
20	Contributions In Aid Of Construction	211,777	178,658	183,361
21	Advances for Construction	129,442	137,373	
22	Total Liabilities and Stockholder's Equity	10,080,491	9,583,894	8,470,295

South Haven Sewer Works, Inc.
Comparative Income Statement
Years Ended

Line No.		Test Year and Fiscal Year		Test Year and Fiscal Year		12/31/06 Compared to 12/31/04 Increase (Decrease)
		12/31/06	12/31/05	12/31/04		
1	Operating Revenues	\$3,243,685	\$3,045,969	\$ 2,846,313		\$397,371
	Operating Expenses					
2	Purchased Fuel and Power	205,829	181,578	174,706		31,124
3	Operational and Maintenance Expense	996,379	892,639	1,004,794		(8,415)
4	Administrative and General Expenses	851,748	811,392	800,808		50,940
5	Depreciation	266,361	239,602	211,660		54,701
6	Amortization	20,527	41,360	23,493		(2,966)
7	Amortization of CIAC	(4,702)	(4,702)	(4,701)		(0)
8	Taxes Other Than Income Taxes	172,466	158,024	153,121		19,344
9	Income Taxes					
10	Deferred Income Taxes	108,115	118,801	84,189		23,927
11	Net Operating Expenses	2,616,723	2,438,694	2,448,069		168,655
12	Gain (Loss) Disposal of Assets					
13	Net Operating Income	626,961	607,275	398,244		228,717
14	Non-Operating Income	4,694	7,527	27,649		(22,955)
15	Interest Income	5,706	5,567	4,515		1,191
16	Non-Operating Expense	4,369	24,340	821		3,548
17	Long Term Interest Expense	358,431	322,201	226,382		132,049
18	Other Interest Expense	9,043	8,092	7,571		1,472
19	Net Income	\$265,518	\$265,736	\$195,634		\$69,884
	TIE Ratio	2.02	2.16	2.20		
	DSC Ratio	1.72	1.82	1.68		

South Haven Sewer Works, Inc.
Valparaiso, Indiana 46385
Detail Comparison of Operating Revenues
For Years Ended

Line No.		Test Year and Increase Test Year Fiscal Year (Decrease) 12/31/06 12/31/04		
	Sewer Service Revenues			
1	Flat Rate Residential	\$2,699,189	\$2,349,188	\$350,001
2	Metered	323,850	262,406	61,445
3	Wastestreams	112,725	170,184	(57,459)
4				
5	Total Sewer Service Revenues	3,135,764	2,781,778	353,986
	Other Operating Revenues			
6	Forfeited Discounts	44,159	31,661	12,498
7	Miscellaneous Service Revenues	63,762	32,875	30,887
8	Total Other Operating Revenues	107,921	64,536	43,385
9	Total Sewer Operating Revenues	<u>\$3,243,685</u>	<u>\$2,846,313</u>	<u>\$397,371</u>

South Haven Sewer Works, Inc.

Valparaiso, Indiana

Comparative Detail of Operating Expenses Years Ended

Line No		Test Year 12/31/06	Test and Fiscal Year Ended 12/31/04	Increase (Decrease)	% Increase (Decrease)
1	Purchased Fuel and Power	205,829	\$174,706	\$31,124	17.81%
2	Operation and Maintenance Expense				
3	Operating Labor, Vacation, and Holiday	493,831	535,982	(42,152)	(7.86%)
4	Chemicals	71,306	44,370	26,936	60.71%
5	Supplies and Expense	22,963	23,100	(137)	(0.59%)
6	Operations Sludge Removal	87,290	147,751	(60,461)	(40.92%)
7	Laboratory-Affiliate Contract	188,305	210,267	(21,962)	(10.44%)
8	Operation-Affiliate Contract	51,371		51,371	
9	Repair and Maint. - Structures				
10	Repair and Maint. - Collecting System	31,114	19,652	11,463	58.33%
11	Repair and Maint. - Pumping System	10,267	13,105	(2,838)	(21.65%)
12	Repair and Maint. - Treatment & Disposal	20,157	888	19,269	2169.00%
13	Repair and Maint. - Belt Press				
14	Repair and Maint. - Vehicles	41,741	26,457	15,284	57.77%
15	Repair and Maint. - General Plant	5,339	20,020	(14,681)	(73.33%)
16	Repair and Maint. - Grounds	4,083	2,050	2,033	99.16%
17	Transportation				
18	Operations Rent	(296)	(12)	(284)	
19	Water Usage	25,368	24,243	1,125	4.64%
20	Total Operation and Maint. Expenses	\$1,052,840	\$1,067,874	(\$15,035)	(1.41%)

South Haven Sewer Works, Inc.

Valparaiso, Indiana

Comparative Detail of Operating Expenses

Years Ended

Line No		Test Year 12/31/06	Test and Fiscal Year Ended 12/31/04	Increase (Decrease)	% Increase (Decrease)
21					
22	Administrative and General Expenses				
23	Administrative and General Salaries	147,587	138,054	9,532	6.90%
24	Customer Collection Wages	49,941	51,008	(1,067)	(2.09%)
25	Customer Collection Expense	23,728	13,865	9,863	71.14%
26	Office Supplies and Other Expense	26,262	29,156	(2,894)	(9.92%)
27	Travel	2,128	4,442	(2,314)	(52.10%)
28	Postage	12,404	12,749	(345)	(2.71%)
29	Telephone	25,085	19,892	5,193	26.10%
30	Insurance Expense	31,911	46,303	(14,392)	(31.08%)
31	Workers Compensation	8,141	14,235	(6,094)	(42.81%)
32	Employee Pension and Benefits	206,418	236,206	(29,788)	(12.61%)
33	Vacation and Holiday Wages*				
34	Regulatory Commission Expense	2,960	2,956	4	0.14%
35	Uncollectible Accounts	16,640	10,517	6,123	58.23%
36	Outside Services	87,345	37,669	49,676	131.88%
37	Administrative Expense	152,026	119,500	32,526	27.22%
38	Miscellaneous General Expense	2,750	1,175	1,575	134.05%
39					
40	Total Admin. and General Expense	795,327	737,728	57,599	7.81%
41					
42	Total Operation and Maintenance	\$2,053,996	\$1,980,307	\$73,688	3.72%

South Haven Sewer Works, Inc.

Valparaiso, Indiana

Comparative Detail of Operating Expenses Years Ended

Line No		Test Year 12/31/06	Test and Fiscal Year Ended 12/31/04	Increase (Decrease)	% Increase (Decrease)
43					
44	Depreciation	266,361	211,660	54,701	25.84%
45					
46	Amortization of CIAC	(4,702)	(4,701)	(0)	
47					
48	Amortization Rate Case Expense	20,488	23,493	(3,006)	(12.79%)
49					
50	Taxes Other Than Income Taxes				
51	Property Taxes	67,913	52,824	15,089	28.57%
52	Utility Receipts Tax and Sales Tax	46,025	38,990	7,036	18.04%
53	FICA Taxes	54,586	58,263	(3,677)	(6.31%)
54	Federal Unemployment Taxes	1,260	1,377	(118)	(8.55%)
55	State Unemployment Taxes	2,682	1,667	1,014	60.85%
56	Total Taxes Other Than Income Tax	172,466	153,121	19,344	12.63%
57					
58	Operating Expenses Before FIT & SIT	2,508,608	2,363,880	144,728	6.12%
59					
60	Income Taxes				
61	Adjusted Gross and Supplemental Tax				
62	Federal Income Tax				
63	Total Income Taxes	-	-	-	
64	Deferred Income Taxes				
65	Deferred State Income Tax	31,813	25,399	6,414	25.25%
66	Deferred Federal Income Tax	76,302	58,790	17,513	29.79%
67	Total Deferred Income Taxes	108,115	84,189	23,927	28.42%
68					
69	Total Operating Expenses	\$2,616,723	\$2,448,069	\$168,655	6.89%

*Vacation and Holiday Expense for pro-forma year are included in Operating Labor and Customer Collection V

**South Haven Sewer Works, Inc.
Proforma Operating Expense Comparison**

Line No		Proforma Test Year 12/31/06	Stipulated Agreement Test and Fiscal Year Ended 12/31/04	Increase (Decrease) 12/31/06 Test Year to Test Year of 12/31/04	% Increase (Decrease)
1	Purchased Fuel and Power	205,829	\$174,706	\$31,124	17.81%
2	Operation and Maintenance Expense				
3	Operating Labor, Vacation, and Holiday	514,897	520,988	(6,092)	(1.17%)
4	Chemicals	71,306	48,732	22,574	46.32%
5	Supplies and Expense	23,364	23,101	262	1.13%
6	Operations Sludge Removal	89,840	150,111	(60,271)	(40.15%)
7	Laboratory-Affiliate Contract	221,829	172,452	49,377	28.63%
8	Operation-Affiliate Contract	70,980		70,980	
9	Repair and Maint. - Structures				
10	Repair and Maint. - Collecting System	31,114	19,652	11,463	58.33%
11	Repair and Maint. - Pumping System	10,267	13,105	(2,838)	(21.65%)
12	Repair and Maint. - Treatment & Disposal	20,157	888	19,269	2169.00%
13	Repair and Maint. - Belt Press				
14	Repair and Maint. - Vehicles	41,741	26,457	15,284	57.77%
15	Repair and Maint. - General Plant	5,339	20,020	(14,681)	(73.33%)
16	Repair and Maint. - Grounds	4,083	2,050	2,033	99.16%
17	Transportation				
18	Operations Rent	(296)	(12)	(284)	
19	Water Usage	27,397	23,633	3,764	15.93%
20	Total Operation and Maint. Expenses	\$1,132,018	\$1,021,178	\$110,840	10.85%
21					
22	Administrative and General Expenses				
23	Administrative and General Salaries	150,307	138,054	12,252	8.87%
24	Customer Collection Wages	59,660	38,869	20,791	53.49%
25	Customer Collection Expense	4,241	13,865	(9,624)	(69.42%)
26	Office Supplies and Other Expense	26,262	29,156	(2,894)	(9.92%)
27	Travel	2,128	4,442	(2,314)	(52.10%)

South Haven Sewer Works, Inc.
Proforma Operating Expense Comparison

Line No		Proforma Test Year 12/31/06	Stipulated Agreement Test and Fiscal Year Ended 12/31/04	Increase (Decrease) 12/31/06 Test Year to Test Year of 12/31/04	% Increase (Decrease)
28	Postage	13,040	12,749	291	2.28%
29	Telephone	25,085	19,892	5,193	26.10%
30	Insurance Expense	29,517	46,303	(16,786)	(36.25%)
31	Workers Compensation	9,630	9,759	(128)	(1.32%)
32	Employee Pension and Benefits	213,498	284,537	(71,039)	(24.97%)
33	Vacation and Holiday Wages*				
34	Regulatory Commission Expense	4,151	3,574	577	16.15%
35	Uncollectible Accounts	16,640	10,517	6,123	58.23%
36	Outside Services	87,345	37,669	49,676	131.88%
37	Administrative Expense	158,542	140,500	18,041	12.84%
38	Miscellaneous General Expense	2,750	(8,475)	11,225	(132.45%)
39					
40	Total Admin. and General Expense	802,796	781,412	21,385	2.74%
41					
42	Total Operation and Maintenance	\$2,140,644	\$1,977,295	\$163,349	8.26%
43					
44	Depreciation	271,852	241,444	30,408	12.59%
45					
46	Amortization of CIAC	(5,647)	(4,701)	(946)	20.11%
47					
48	Amortization Rate Case Expense	30,042	15,000	15,041	100.28%
49					
50	Taxes Other Than Income Taxes				
51	Property Taxes	64,065	57,110	6,955	12.18%
52	Utility Receipts Tax and Sales Tax	49,950	44,380	5,570	12.55%
53	FICA Taxes	58,076	54,319	3,757	6.92%
54	Unemployment Taxes	3,604	2,023	1,580	78.09%
55					

**South Haven Sewer Works, Inc.
Proforma Operating Expense Comparison**

Line No		Proforma Test Year 12/31/06	Stipulated Agreement Test and Fiscal Year Ended 12/31/04	Increase (Decrease) 12/31/06 Test Year to Test Year of 12/31/04	% Increase (Decrease)
56	Total Taxes Other Than Income Tax	175,695	157,832	17,862	11.32%
57					
58	Operating Expenses Before FIT & SIT	2,612,585	2,386,870	225,715	9.46%
59					
60	Income Taxes				
61	Adjusted Gross and Supplemental Tax				
62	Federal Income Tax				
63	Total Income Taxes	-	-	-	
64	Deferred Income Taxes				
65	Deferred State Income Tax	56,404	46,778	9,626	20.58%
66	Deferred Federal Income Tax	190,802	156,117	34,686	22.22%
67	Total Deferred Income Taxes	247,206	202,895	44,311	21.84%
68					
69	Total Operating Expenses	<u>\$2,859,791</u>	<u>\$2,589,765</u>	<u>\$270,026</u>	<u>10.43%</u>

*Vacation and Holiday Expense for pro-forma year are included in Operating Labor and Customer Collection Wages.

South Haven Sewer Works, Inc.
Pro-forma Income Statement
Test Year Ending
December 31, 2006

Line No.	Item Description	Test Year Ended 12/31/2006 Col. A	Present Rate Adjustments Col. B	Pro-forma Present Rates Col. C	Proposed Rate Adjustments Col. D	Pro-forma Proposed Rates Col. E	Percentage Increase (Decrease) Col. F	Minimum Residential Monthly Rate Col. G.
Operating Revenues								
1	Sewage Revenues-Residential	\$ 2,699,189	58,650 (1)	2,757,839	244,441 (a)	3,002,280	8.86%	\$70.70685
2	Sewage Revenues-Other	323,850	(1)	323,850	28,705 (a)	352,555	8.86%	
3	Sewage Revenues-Hauled Waste	112,725	(1)	112,725	9,991 (a)	122,716	8.86%	\$0.065100
4	Forfeited Discounts	44,159		44,159		44,159		
5	Miscellaneous Revenues	63,762		63,762		63,762		
6	Total Operating Revenues	\$3,243,685	\$58,650	\$3,302,334	\$ 283,137	\$3,585,472		
Operating Expenses and Taxes								
9	Operation & Maintenance Expense	2,051,036		2,136,493		2,136,493		
10	Salaries and Wages		33,505 (2)					
11	Laboratory Expense		33,524 (3)					
12	Operations Expense		19,609 3a					
13	Property & General Liability Insurance		(2,393) (6)					
14	Sludge Removal		2,550 (4)					
15	Health Insurance & Pension		7,080 (7)					
16	Worker's Compensation		1,490 (8)					
17	Express Personnel		(19,488) (5)					
18	Uniforms		400 5a					
19	Administrative Expense		6,515 10					
20	Water Expense		2,029 10a					
21	Postage		636 10b					
22	IURC Fees	2,960	859 (11)	3,819	332 b	4,151		
23	Depreciation Expense	266,361	5,491 (12)	271,852		271,852		
24	Amortization-CIAC	(4,702)	(945) 18	(5,647)		(5,647)		
25	Amortization-Rate Case Expense	20,488	9,554 (9)	30,042		30,042		
26	OASDI and HI Taxes	54,586	3,490 (13)	58,076		58,076		
27	Other Taxes FUTA & SUTA	3,941	(338) (14)	3,604		3,604		
28	Property Taxes	67,913	(3,848) (15)	64,065		64,065		
29	Utility Receipts Tax	46,025	(40) 15a	45,986	3,964 c	49,950		
30	State Income Tax	31,813	889 (16)	32,702	23,702 d	56,404		
31	Federal Income Tax	76,302	27,753 (17)	104,055	86,748 e	190,802		
32	Total Operating Expenses	2,616,723	128,323	2,745,046	114,745	2,859,791		
34	Net Operating Income	\$626,961	(\$69,673)	\$557,288	\$168,392	\$725,680		
35	Rounding					3		
36	Net Operating Income After Rounding Adjustment					\$725,683		

South Haven Sewer Works, Inc.
Pro-forma Income Statement
Test Year Ending
December 31, 2006

Debt Service Coverage Ratio

Net Operating Income	\$725,680
Depreciation Expense	271,852
Amortization Expense	30,042
Amortization of CIAC	<u>(5,647)</u>
Total	<u>\$1,021,927</u>

Interest Expense	\$356,090
Current-Long-term Debt	<u>164,827</u>
Total	<u>\$520,917</u>
Debt Service Coverage Ratio	1.96

TIE Ratio	
Net Operating Income	\$725,680
Income Tax Expense	<u>247,206</u>
Total	<u>972,886</u>

Interest Expense	<u>356,090</u>
TIE Ratio	2.73

South Haven Sewer Works, Inc.
Detail of Adjustments

(1)

To adjust revenues to normalize the rates and new customers.

Revenues for Year Ended December 31, 2004	\$3,243,685
Additional Customers	58,650
Less Wastestream Customers	<u>0</u>
Pro-forma Present Rates	\$3,302,334
Less Test Year	<u>3,243,685</u>
Increase (Decrease)	<u><u>\$58,650</u></u>

(2)

To adjust labor expense to show the normalization of wages for payroll increases.

Pro-forma Present Rates	\$ 719,909
Less: Test Year	<u>686,404</u>
Adjustment - Increase (Decrease)	<u><u>\$ 33,505</u></u>

(3)

To adjust operating expense to reflect the bid and new affiliated agreement with Utility Services Corp..concerning Laboratory.

Pro-forma Present Rates	\$221,829
Less: Test Year	<u>188,305</u>
Adjustment - Increase (Decrease)	<u><u>\$33,524</u></u>

(3a)

To adjust operating expense to reflect the bid and new affiliated agreement with Utility Services Corp.concerning Operations.

Pro-forma Present Rates	\$70,980
Less: Test Year	<u>51,371</u>
Adjustment - Increase (Decrease)	<u><u>\$19,609</u></u>

(4)

To adjust operating expense for the normalization of sludge removal expense..

Pro-forma Present Rates	\$82,235
Less: Test Year	<u>79,685</u>
Adjustment - Increase (Decrease)	<u><u>\$ 2,550</u></u>

(5)

South Haven Sewer Works, Inc.
Detail of Adjustments

To adjust operating expense for the normalization of employment service expense.

Pro-forma Present Rates	(\$19,488)
Less: Test Year	-
Adjustment - Increase (Decrease)	<u>\$ (19,488)</u>

(5a)

To adjust operating expense for the normalization of uniform expense.

Pro-forma Present Rates	\$10,172.76
Less: Test Year	\$9,772.73
Adjustment - Increase (Decrease)	\$400.03

(6)

To adjust operating expense to normalize property and general liability insurance expense.

Pro-forma Present Rates	\$29,517
Less: Test Year	31,911
Adjustment - Increase (Decrease)	<u>(\$2,393)</u>

(7)

To adjust operating expense to normalize health insurance and pension expense.

Pro-forma Present Rates	\$ 202,371
Less: Test Year	195,292
Adjustment - Increase (Decrease)	<u>\$ 7,080</u>

(8)

To adjust operating expense to normalize workers compensation insurance.

Pro-forma Present Rates	\$9,630
Less: Test Year	8,141
Adjustment - Increase (Decrease)	<u>\$ 1,490</u>

(9)

To adjust operating expense to normalize rate case expense.

Pro-forma Present Rates	\$30,042
Less: Test Year	20,488
Adjustment - Increase (Decrease)	<u>\$9,554</u>

South Haven Sewer Works, Inc.
Detail of Adjustments

(10)

To adjust operating expense for normalization of affiliated administration expense.

Pro-forma Present Rates	\$158,542
Less: Test Year	<u>152,026</u>
Adjustment - Increase (Decrease)	<u><u>\$6,515</u></u>

(10a)

To adjust operating expense to normalize water.

Pro-forma Present Rates	\$27,397
Less: Test Year	<u>25,368</u>
Adjustment - Increase (Decrease)	<u><u>\$2,029</u></u>

(10b)

To adjust operating expense to normalize postage expense.

Pro-forma Present Rates	\$13,040
Less: Test Year	<u>12,404</u>
Adjustment - Increase (Decrease)	<u><u>\$636</u></u>

(11)

To adjust operating expense to normalize Utility Regulatory Commission Fees.

Pro-forma Present Rates	\$3,819
Less: Test Year	<u>2,960</u>
Adjustment - Increase (Decrease)	<u><u>\$859</u></u>

(12)

To adjust operating expense to normalize depreciation expense.

Utility Plant in Service per Books	\$11,015,823
Less Land	(11,510)
Less Easements	(49,664)
Less Assets Allocated to USC per OUCC	(232,898)
Additions since 12/31/06	152,336
Total Depreciable Plant In Service	<u>\$10,874,087</u>
Depreciation Rate	2.50%

South Haven Sewer Works, Inc.
Detail of Adjustments

Pro-forma Depreciation Expense	\$271,852
Less: Test Year	266,361
Adjustment Increase	<u>\$5,491</u>

(13)

To adjust operating expense to normalize OASDI and HI payroll tax expense.

Pro-forma Present Rates	\$ 57,697
Less: Test Year	54,207
Adjustment - Increase (Decrease)	<u>\$ 3,490</u>

(14)

To adjust operating expense to normalize federal unemployment and state unemployment taxes.

Pro-forma Present Rates	\$ 3,547
Less: Test Year	3,884
Adjustment - Increase (Decrease)	<u>\$ (338)</u>

(15)

To adjust operating expense for normalization of property taxes.

Pro-forma Present Rates	\$64,065
Less: Test Year	67,913
Adjustment - Increase (Decrease)	<u>\$ (3,848)</u>

(15a)

To adjust operating expense for normalization of utility receipt tax.

Pro-forma Present Rates	
Utility Receipts Revenues	
Sewage Revenues-Residential	\$2,757,839
Sewage Revenues-Other	323,850
Sewage Revenues-Hauled Waste	112,725
Miscellaneous Revenues	63,762
Forfeited Discounts	44,159
Bad Debt Expense	(16,640)
Deduction	(1,000)
	<u>\$3,284,694</u>
	1.40%

South Haven Sewer Works, Inc.
Detail of Adjustments

Pro-forma Present Rates	\$ 45,986
Test Year	46,025
Pro-forma Adjustment	<u>\$ (40)</u>

(16)

To adjust operating expense to normalize state income taxes.

Adjusted Gross Income Tax	
Pro-Forma Present Rates Revenue Level	\$3,302,334
Less: Operations and Maintenance Expense	(2,140,312)
Depreciation Expense	(271,852)
Amortization Expense	(30,042)
Taxes Other Than Income	<u>(171,731)</u>
Sub-total	\$688,398
Less - Average Interest Expense On New Debt	(356,090)
Add -	0
Timing Differences	
Depreciation On CIAC	5,647
Taxable Meals	<u>790</u>
Net Operating Income Before Property, FIT and SIT	\$338,745
Add - Non-deductible Utilities Receipt Tax	<u>45,986</u>
	\$384,731
Adjusted Gross Income Tax Rate	8.50%
Total Pro-Forma Adjusted Gross Income Tax	<u>\$32,702</u>
Total Adjusted Gross Income Tax	\$ 32,702
Total Supplemental Net Income Tax	-
Pro-forma State Income Expense	\$ 32,702
Less: Test Year	<u>31,813</u>
Increase (Decrease)	<u>\$ 889</u>

(16)

(17)

To adjust operating expense to normalize federal income taxes.

Net Operating Income Before Property, FIT and SIT	332,308
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South Haven Sewer Works, Inc.
Detail of Adjustments

Less - Property Taxes	0	
Pro-Forma Present Rate State Income Tax	(32,702)	
Add - Timing Differences	0	
CIAC Depreciation	5,647	
Taxable Meals	790	
Pro-Forma Federal Taxable Income	\$ 306,043	
Times - Federal Tax Rate	34.00%	
Pro-Forma Present Rates Federal Income Taxes	\$ 104,055	
Less - Test Year	76,302	
Adjustment Increase (Decrease)	<u>\$ 27,753</u>	(17)

Proof Pro-Forma Federal Taxable Income	306,043	
Tax on First \$100,000	22,250	
The Amount over \$100,000 but not over \$335,000	206,043	
Tax Rate	39.00%	
Tax On amount over \$100,000 but not over \$335,000	<u>\$80,357</u>	
Tax on First \$100,000	<u>22,250</u>	
Total Tax	<u><u>102,607</u></u>	

**South Haven Sewer Works, Inc.
Detail of Pro-forma Adjustments
For Proposed Rate Increase**

(a) (a)
To adjust Net Operating Income to reflect the Pro-forma Proposed Rate Increase.

	Original Cost	
Pro-forma proposed rates -Residential	\$ 2,757,839	
Times: Proposed increase	8.86%	
Adjustment - Increase	<u>\$244,441</u>	
Pro-forma proposed rates Other	\$323,850	
Times: Proposed increase	8.86%	
Adjustment - Increase	<u>\$28,705</u>	
Pro-forma proposed rates Hauled Waste	\$112,725	
Times: Proposed increase	8.86%	
Adjustment - Increase	<u>\$9,991</u>	

(b) b
To adjust operating to reflect the pro-forma proposed level of IURC fees.

Proposed Revenue Increase	\$283,137	
IURC Rate Fee	0.001172179	
Adjustment - Increase	<u>\$332</u>	

c
To adjust operating expense to reflect the pro-forma proposed level of utility fees.

Proposed Revenue Increase	\$283,137	
Utility Fee Tax Rate	<u>0.014</u>	
		\$3,964

South Haven Sewer Works, Inc.
Detail of Pro-forma Adjustments
For Proposed Rate Increase

d

To adjust state income taxes to reflect the pro-forma proposed level of gross and supplemental income tax.

Proposed Revenue Increase	\$283,137	
Less: Increase of Utility Fees	(\$3,964)	
Less: Increase of IURC Rate Fee	(\$332)	
Sub-total	<u>\$278,841</u>	
Times: Gross Income Tax Rate	<u>8.50%</u>	
Adjustment - Increase		<u><u>\$ 23,702</u></u>

e

To adjust pro-forma operating expenses to reflect the proposed Federal Income Taxes.

Proposed Revenue Increase	\$283,137	
Less: Utility Fee Increase	(\$3,964)	
Less: IURC Fee Increase	(\$332)	
Less: State Income Tax Increase	(23,702)	
Federal Taxable Income	<u>255,140</u>	
Federal Income Tax Rate	34.00%	
Adjustment - Increase		<u><u>\$ 86,748</u></u>

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Original Cost Rate Base

Description	Original Cost
1 Utility Plant in Service	\$11,015,823
2 Less: Accumulated Depreciation	(\$2,293,238)
3 Net Utility Plant In Service at December 31, 2006	<u>8,722,585</u>
Less: Accumulated Depreciation Increase to Cut off date	
4 Add: Capital Items Added Since December 31, 2006	152,336
5 Less: Accumulated Depreciation of Capital Items Added Since December 31, 2006	(3,808)
6 Less Allocation Adjustment at Book Cost	(232,898)
7 Add: Allocation Adjustment Accumulated Depreciation	<u>64,626</u>
8 Less Allocation Adjustment at Net Book Value	(168,271)
9 Less Easements	<u>(49,664)</u>
10 Total Adjustments to Rate Base	(217,936)
11 Less: Contribution In Aid of Construction Net at December 31, 2006	(173,957)
12 Less: Contribution In Aid of Construction from System Development Charges	(37,820)
13 Less: Advances for Construction	(129,442)
14 Add: Working Capital (45 Day Method)	
15	
16 Proforma Proposed Operating Expenses	2,136,493
17 Less:	
18 Purchased Power	<u>(205,829)</u>
19 Sub Total	1,930,664
20 Divided by:	<u>8</u>
21 Total Working Capital	241,333
22	
23	
24 Original Cost Rate Base	<u>8,553,291</u>
25 Cost of Capital	<u>8.484%</u>
26 Return on Rate Base	<u>\$725,683</u>

South Haven Sewer Works, Inc.
Weighted Cost of Capital

Line No.	Description	Capitalization Amount Col. A	Percent of Total Col. B	Cost Col. C	Weighted Cost Col. D	Interest Expense Col. E
1	Long-term Debt Plant- 20 Yr.	\$3,742,665	39.67%	6.50%	2.579%	\$243,273
2	Long-term Debt Equipment- 20 yr	1,278,638	13.55%	7.95%	1.078%	101,652
3	Long-term Debt Plant- 20 Yr.	128,450	1.36%	7.98%	0.109%	10,250
4	2004 Ford Explorer	21,604	0.23%	0.02%	0.000%	4
5	2007 Ford Ranger	18,580	0.20%	4.90%	0.010%	910
6	Common Equity	3,617,387	38.35%	12.10%	4.638%	
7	Deferred Taxes	513,679	5.45%	0.00%	0.000%	
8	Customer Deposits	112,742	1.20%	6.00%	0.072%	
9	Totals	\$9,433,746	100.00%		8.484%	\$356,090

Interest Expense

\$356,090

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

Total	2004 RETIREMENTS		
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34,986.75

8,930,930.38

as of 12/31/04

SOUTH HAVEN SEWER
ADDITIONS
FROM 1-1-2005 TO 12-31-2005

Asset No.	Asset Description	Date	Additions
1339300275	SLUDGE AREA DRAINAGE	1/1/2005	3785.30
1339300272	DIESEL FUEL TANK	1/21/2005	622.96
1339300269	TAP-399 MILPORT	2/1/2005	2657.22
1339300270	CHERNE MUNI-BALL	2/1/2005	1625.00
1339300277	SMARTDRAW SOFTWARE	2/3/2005	111.95
1339300279	COMPUTER-DELL 2.99 GHZ	2/3/2005	705.97
1339300273	SEWER MODIFICATION PARTS	2/7/2005	597.85
1339300271	AMMONIA COLORIMETER	2/15/2005	318.03
1339300274	MOTIVE PUMPS	2/18/2005	2115.00
1339300278	MONITOR-SAMSUNG 17"	2/28/2005	144.39
1339300280	SCREEN ROOM DRAINS	3/7/2005	1939.61
1339300281	SEAL-MOTIVE PUMP	3/7/2005	7642.75
1339300282	COMPUTER MODULE-CONTROL PANEL	5/19/2005	959.00
1339300301	COMPUTER HARDWARE-CONTROL PANEL	5/19/2005	2441.35
1339300303	1996 TAURUS REHAB	5/25/2005	1600.85
1339300292	SBR BLOWERS	5/28/2005	11734.67
1339300285	MAIN-SOUTH LOOP S	6/1/2005	591759.48
1339300287	SOUTH LOOP REHAB-EXCAVATION	6/1/2005	70228.47
1339300288	STORM CROSSING-376 STONEHILL	6/1/2005	19619.48

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

1339300289	STORM CROSSING-376 CLEAR CREEK	6/1/2005	15706.56
1339300291	MAIN-501 RAINIER CT	6/1/2005	5873.44
1339300293	STORM MAIN-706 GOVERNOR	6/1/2005	4855.67
1339300295	SEWER TAP-PHEASANT RUN-497 N	6/1/2005	713.82
1339300296	SEWER TAP-PHEASANT RUN-495 N	6/1/2005	713.82
1339300297	SEWER TAP-PHEASANT RUN-493 N	6/1/2005	713.82
1339300298	SEWER TAP-PHEASANT RUN-494 N	6/1/2005	713.82
1339300299	SEWER TAP-PHEASANT RUN-492 N	6/1/2005	713.84
1339300294	TELEVISION-SAFETY MEETINGS	6/1/2005	116.53
1339300300	VAC TRUCK REHAB	6/1/2005	4751.60
1339300286	MAIN-SOUTH LOOP SLIP LINE	6/21/2005	162109.23
1339300290	STORM CROSSING-704 IMPERIAL	6/21/2005	3181.15
1339300276	MAIN-GOVERNOR & HERITAGE	6/27/2005	68210.72
1339300315	SCREEN AUGER MOTOR	6/30/2005	634.00
1339300305	MANHOLE-337 LAHONDA	7/1/2005	3100.00
1339300318	MAIN-PHEASANT RUN REHAB	7/1/2005	1019.30
1339300319	YARD REHAB-768 DEVONSHIRE	7/1/2005	698.57
1339300306	WP L/S PUMP REHAB	7/1/2005	3723.56
1339300284	GWH LIFT STATION REHAB	7/21/2005	17353.34
1339300316	ASPHALT (SBR)	8/1/2005	800.00
1339300309	MAIN-261 W 700 N (SOUTH LOOP)	8/1/2005	19167.04
1339300302	WIRELESS BRIDGE	8/23/2005	693.19
1339300317	AIR CONDITIONER (OFFICE)	9/1/2005	2075.00
1339300314	MAIN-S/C BYPASS CONNECTION	9/1/2005	7050.00
1339300321	SEWER MODIFICATION-358 LAHONDA	9/1/2005	638.63
1339300322	SEWER MODIFICATION-722 CAPITAL	9/1/2005	667.61
1339300323	SEWER MODIFICATION-668 NOME	9/1/2005	153.92
1339300313	GENERATOR REHAB	9/1/2005	9931.00

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

1339300324 DIESEL PUMP AUTO START (GENERATOR)	9/1/2005	1450.00
1339300330 TRANSDUCER-SBR	9/1/2005	665.25
1339300331 TAIL GATE-2000 DUMP TRUCK	9/1/2005	612.00
1339300304 CMOM III-MATERIAL-ELECTRONICS	9/1/2005	430.25
1339300320 PHD LITE	9/1/2005	633.25
1339300307 STORM CROSSING-LAHONDA	9/16/2005	57738.21
1339300311 MAIN-760 BALTIMORE	9/16/2005	32855.63
1339300367 COMPUTER SERVER-50% ALLOCATION	9/16/2005	2289.59
1339300283 MAIN-CLEARCREEK TRUNKLINE	9/30/2005	77479.37
1339300308 STORM LINE-706 HERITAGE	9/30/2005	6731.68
1339300312 EFFLUENT PIPE	9/30/2005	10055.73
1339300329 STORM CROSSING-376 STONEHILL	10/1/2005	35.00
1339300328 ELECTRONICS-HACH	10/1/2005	4911.95
1339300332 EFFLUENT SAMPLER	10/1/2005	432.00
1339300333 PLANT CONTROLS-COMPUTER HARDWARE	10/1/2005	871.27
1339300327 EFFLUENT LINE-CONTACT CHAMBER	10/2/2005	146927.00
1339300325 MAINS-KOMARK (SPECIAL CONTRACT)	10/12/2005	118533.50
1339300326 LIFT STATIONS-KOMARK (SPECIAL CONTRACT)	10/12/2005	20350.00
1339300361 TELEPHONE-NOKIA 6015	10/21/2005	148.35
1339300334 DRAINAGE PLANT GATE	11/1/2005	6689.87
1339300337 STORM CROSSING-744 TIMBERLINE	11/1/2005	3772.67
1339300339 STORM CROSSING-785-787 TIMBERLINE	11/1/2005	4166.89
1339300340 STORM CROSSING-SH ELEMENTARY	11/1/2005	4166.89
1339300335 TAP-113 COVENTRY	11/1/2005	1534.25
1339300336 LANDSCAPING	11/1/2005	6113.87
1339300341 TAP-732 FOX RIVER RD	11/1/2005	931.00
1339300342 TAP-717 GOVERNOR	11/1/2005	1673.04
1339300338 VACTOR TRUCK-CYCLONE	11/1/2005	3818.02

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

1339300346 CONTACT CHAMBER CAPACITY	12/1/2005	6396.66
1339300363 ROAD-LIFT STATION-2560 LOIS	12/1/2005	2581.00
1339300343 STORM CROSSING-TIMBERLINE/LAHONDA	12/1/2005	50671.13
1339300351 FORCE MAIN RELOCATE (US 6)	12/1/2005	947.50
1339300350 SEWER MODIFICATION PARTS	12/1/2005	1949.36
1339300352 INTERCEPT-721-1 DEVONSHIRE	12/1/2005	1120.24
1339300353 INTERCEPT-398 GREENDALE	12/1/2005	837.50
1339300354 INTERCEPT-771 FREEMONT	12/1/2005	547.50
1339300355 INTERCEPT-532 RIVERA	12/1/2005	475.00
1339300356 INTERCEPT-424A SAGINAW	12/1/2005	485.00
1339300357 INTERCEPT-625 OLYMPIA	12/1/2005	695.16
1339300358 LANDSCAPING	12/1/2005	2004.66
1339300360 INTERCEPT-714-1 CAPITAL RD	12/1/2005	745.00
1339300366 INTERCEPT-625 OLYMPIA	12/1/2005	65.00
1339300344 MOTIVE PUMP #2 REHAB	12/1/2005	20354.41
1339300345 MOTIVE PUMP #3 REHAB	12/1/2005	1026.00
1339300348 WINDSOR PAR L/S REHAB ADDNTL	12/1/2005	2029.22
1339300349 SBR BLOWER #3	12/1/2005	2438.66
1339300364 ENGINE-HONDA	12/1/2005	898.61
1339300359 BELT-BELT PRESS	12/1/2005	749.74
1339300347 INFRARED THERMOMETER	12/1/2005	597.00
1339300365 SKID-CLOSED CIRCUIT TV	12/1/2005	642.70
1339300362 SOFTWARE-FLOW ANALYSIS	12/21/2005	467.00

Total	2005 ADDITIONS			1,671,429.09
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10,602,359.47

as of 12/31/05

SOUTH HAVEN SEWER

Cause xxxxx
Exhibit ELB-1
Schedule 12
Page 4 of 10

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

RETIREMENTS
FROM 1-1-2005 TO 12-31-2005

13392946	MAJOR OVERHAUL FOR 1986-C-34-13392945	12/16/1999	1,455.04
1339300243	1998 FORD EXPLORER-REBUILT TRANS	5/14/2004	1,600.00
1339110	15" CTX MONITOR	12/28/97	240.19
13391028	OKIDATA OL600E PRINTER	03/21/97	410.16
13391030	OKIDATA OL600E PRINTER	08/01/97	329.18
13391031	RAM MODULE	07/24/97	287.00
13391032	HARD DISK/CD ROM	09/22/97	182.85
13391034	EPSON PRINTER	12/03/97	397.16
13391037	C-41410 : NEC 400MHZ COMPUTER	05/27/98	3,426.15
13391040	TOSHIBA 166MMX COMPUTER	02/24/98	719.36
13391041	SAMPO 15" MONITOR	06/16/98	204.48
13391042	200MHZ TOSHIBA COMPUTER (SERVER)	06/16/98	811.65
13391043	200MHZ TOSHIBA COMPUTER	06/16/98	811.65
13391044	8 16MB MEMORY CHIPS	07/31/98	179.38
13391045	4 TWISTER MOTHER BOARDS	08/04/98	455.96
13391046	2 VIDEO DRIVERS	08/04/98	131.98
13391945	MT360 24WIRE PRINTER	01/06/94	2,437.93
13391947	MODEL 7213 HARDDRIVE RMA#U000116639	05/26/94	150.00
13391948	ZEOS PC	01/03/94	1,989.50
133910025	C-41410 : ZEOS 486 TOWER COMPUTER W/ NEC 4	03/22/95	3,985.00
133910029	CARD AND CABLE LINK	05/05/95	181.79
133910052	CANON BJ 200 EX PRINTER	07/05/95	235.00
133919422	CANON BJ230 WIDE CARRAIGE PRINTER	06/22/95	401.00

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

133939023	540MB WESTERN DIGITAL IDE KIT	06/19/95	232.00
133939024	PALMTOP HP 200 LX	04/04/95	682.49
133939028	HARD DISK WITH RAM UPGRADE	06/18/96	860.13
133939029	HARD DRIVE CONTROLLER	08/05/96	65.99
133939030	DELL MODEL P100t COMPUTER	02/07/96	1,887.90
133939032	CANON BJC 4550 PRINTER & CABLE	10/08/96	534.35
133910B001	PRINTER DRUM-OKIDATA	09/06/00	283.25
133910B02	IOMEGA ZIP DRIVE	12/09/98	213.93
133910B05	VIDEO CARD	10/29/98	67.98
133910B06	VIDEO CARD	11/19/98	84.69
133910B08	E-MACHINE	04/06/99	477.88
133910B10	640 MG HARD DRIVE	04/28/99	166.99
133910B11	MEMORY UPGRADE	01/07/99	111.92
133910B15	KVM EXTENDER FOR PLANT	04/24/01	264.74
133910B25	CONSOLE EXTENDER	05/29/01	211.47
13391036	SAG COMPUTER SERVER	07/24/98	3,267.91
133910030	WINDOWS 95 UPGRADE	04/24/98	94.46

Total	2005 RETIREMENTS		
--------------	-------------------------	--	--

30,530.49 **10,571,828.98**

as of 12/13/05

10,571,828.98

SOUTH HAVEN SEWER
ADDITIONS
FROM 1-1-2006 TO 12-31-2006

1339300368	SOFTWARE-CALIGARI	1/19/2006	468.95
1339300374	INTERCEPT-628 OLYMPIA	1/20/2006	730.00

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

1339300369 TAP-756 EAGLE CREEK	2/1/2006	963.20
1339300375 TAP-755 ARCADIA	2/10/2006	1117.22
1339300370 BLOWER-2 & 3 (SBR)	2/10/2006	1365.78
1339300377 CASH REGISTER	2/10/2006	402.79
1339300408 SSO REHAB FITNESS BARN	2/23/2006	689.75
1339300373 ODALOG W/FILTERS	2/23/2006	1317.29
1339300385 MOTOR-REHAB T/P LIFT STATION	2/28/2006	1525.00
1339300392 MANHOLE COVER	3/21/2006	499.00
1339300379 TAP-317 W 500 N	3/23/2006	2859.20
1339300378 DIGITAL CAMERA	3/27/2006	314.90
1339300376 SEWER MODIFICATION PARTS	4/1/2006	607.96
1339300372 PRINTER-PANASONIC 24 pin	4/1/2006	179.88
1339300407 FILING CABINET	4/5/2006	152.56
1339300371 COMPUTER-DELL OPTIPLEX	4/5/2006	1073.78
1339300391 SO2 REGULATOR-SBR	4/18/2006	3735.29
1339300384 FILE CABINETS	4/18/2006	532.45
1339300383 FORCE MAIN-WINSOR PARK	4/24/2006	703.52
1339300381 LIFT STATION VAULT-FITNESS BARN	4/24/2006	10722.64
1339300382 SHED-WINDSOR PARK	4/24/2006	10736.54
1339300402 FAX MACHINE-BROTHER MFC-8220	5/3/2006	355.08
1339300393 INTERCEPT-734 GOVERNOR	5/9/2006	797.70
1339300394 INTERCEPT-332 LAHONDA	5/9/2006	612.60
1339300395 INTERCEPT-652 NEWPORT	5/9/2006	659.08
1339300396 INTERCEPT-425B SHERMAN	5/9/2006	523.06
1339300397 INTERCEPT-403A SABLE	5/9/2006	558.60
1339300398 INTERCEPT-721 FREEMONT	5/9/2006	1338.56
1339300399 INTERCEPT-749 IMPERIAL	5/9/2006	888.60
1339300401 SBR-CONTACT CHAMBER CAPACITY	5/11/2006	810.00

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

1339300386	FORCE MAIN-FXB	5/11/2006	1043.48
1339300387	MAIN-FORCE MAIN (NIPSCO)	5/12/2006	5230.94
1339300388	FORCE MAIN-BC/NIPSCO	5/16/2006	1659.87
1339300380	MAIN-PAUL SAYLOR	5/17/2006	115126.70
1339300389	LANDSCAPING-COLLECTION SYSTEM	6/2/2006	6478.72
1339300390	SEWER MODIFICATION PARTS	6/2/2006	2141.18
1339300405	ENGINE-HONDA	6/19/2006	861.92
1339300406	SLUDGE PUMP	6/21/2006	5134.06
1339300400	TURBO-TAX FAM 2006	6/26/2006	339.20
1339300404	LANDSCAPING-COLLECTIONS SYSTEM	7/1/2006	565.00
1339300409	FORCE MAIN-TRAILER PARK	8/15/2006	36537.57
1339300403	TRUCK-FORD RANGER	8/15/2006	19717.19
1339300424	COLLECTION SYSTEM-WELL POINTS	9/1/2006	637.31
1339300423	L/S PUMP-RAVINIA	9/1/2006	2740.91
1339300418	DATA LOGGER	9/22/2006	598.21
1339300410	BUILDING-HEATED STORAGE	10/1/2006	35130.15
1339300411	CONTROL UPGRADES-PLANT LIFT STATION	10/1/2006	3318.82
1339300425	PRESSURE WASHER	10/4/2006	295.74
1339300413	INTERCEPT-435 PIEDMONT	10/15/2006	1238.57
1339300414	INTERCEPT-747 DEVONSHIRE	10/15/2006	705.64
1339300415	INTERCEPT-743 TIMBERLINE	10/15/2006	1029.98
1339300419	SEWER MODIFICATION PARTS	10/15/2006	1176.69
1339300420	INTERCEPT-751 CAPITAL RD	10/15/2006	1774.35
1339300421	INTERCEPT-775-1 DEVONSHIRE	10/15/2006	768.05
1339300422	INTERCEPT-638 OXFORD	10/15/2006	777.83
1339300417	LIFT STATION PUMP-GWH	10/31/2006	3623.57
1339300416	VACTOR TRUCK RAMP	11/1/2006	4524.60
1339300412	UPPER DIGESTOR REHAB	11/1/2006	17960.19

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

1339300429 PAINTING-OFFICE	12/1/2006	3010.48
1339300430 SEALCOATING-DRIVEWAY	12/1/2006	3528.00
1339300449 HEATED STORAGE BUILDING-ADDNTL	12/1/2006	973.30
1339300426 MAIN-PAUL SAYLOR	12/1/2006	2574.03
1339300432 PIPE CROSSING-PEPPER CREEK	12/1/2006	4942.50
1339300428 LANDSCAPING	12/1/2006	775.00
1339300431 TAP-272 W 500 N	12/1/2006	1202.50
1339300433 INTERCEPT-728 1SR 149	12/1/2006	819.85
1339300434 INTERCEPT-706 EAGLECREEK	12/1/2006	741.50
1339300435 INTERCEPT-628 OLYMPIA	12/1/2006	1049.01
1339300436 INTERCEPT-381 BRIAR WOOD	12/1/2006	1651.75
1339300437 TAP-568 WATERFORD	12/1/2006	1057.50
1339300438 INTERCEPT-707-1 IMPERIAL	12/1/2006	895.10
1339300442 PLUGS-SEWER MAIN PLUGS	12/1/2006	1795.87
1339300443 INTERCEPT-357 PINWOOD	12/1/2006	1007.55
1339300444 SEWER MODIFICATION PARTS	12/1/2006	803.75
1339300448 TAP-CLEANOUT PETEY'S	12/1/2006	116.10
1339300451 LANDSCAPING-SERVICES	12/1/2006	170.00
1339300427 FENCE-LIFT STATION FOX BURROW	12/1/2006	4800.00
1339300450 INFLUENT FLOW METER	12/1/2006	2689.08
1339300446 VAC TRUCK REHAB	12/1/2006	4108.34
1339300445 VIDEO MODULE	12/1/2006	1914.80
1339300441 MAIN-700 N & MCCOOL RD	12/22/2006	1234.35
1339300440 SANITARY BYPASS	12/31/2006	825.00
1339300453 LANDSCAPING-PAUL SAYLOR MAIN	12/31/2006	14064.78
1339300454 INSITUFORM-LAHONDA	12/31/2006	62828.19
1339300452 LANDSCAPING	12/31/2006	3046.88
1339300447 LIFT STATION DRAINAGE-WINSOR PARK	12/31/2006	2866.50

South Haven Sewer Works, Inc.
Valparaiso, Indiana
Plant in Service
December 31, 2006
Including Additions, Retirements and Transfers
From December 31, 1996

1339300439 INFLUENT SAMPLER 12/31/2006 124.95

Total	2006 ADDITIONS		
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443,994.08 11,015,823.06

SOUTH HAVEN SEWER
ADDITIONS
FROM 1-1-2007 TO PRESENT

1339300461 MAIN-794 CAPITAL	1/31/2007	1,765.00
1339300457 TAP-W US HIGHWAY 6	1/31/2007	947.50
1339300456 HELICON CONVEYOR	1/31/2007	16,521.00
1339300455 2007 CHEVY SILVERADO	2/26/2007	18,675.00
1339300462 HEATED STORAGE BARN (ADDITIONAL)	3/1/2007	1,373.66
1339300460 MAIN-ADDNT'L PAUL SAYLOR	3/1/2007	252.00
1339300458 MAIN-LONGRUN	4/1/2007	39,025.43
1339300459 MAIN-368 LAHONDA	4/1/2007	919.55
1339300463 MANHOLE-OLYMPIA & 600 N	4/1/2007	467.50
1339300464 MAIN-MCCOOL & PORTLAND	5/1/2007	1,460.00
1339300466 MAIN-OLYMPIA & PORTLAND	5/1/2007	18,397.65
1339300467 TAP-728 EAGLE CREEK	5/1/2007	3,719.97
1339300465 TRANSFORMER LIFT STATION-FXB	5/1/2007	12,752.99
1339300468 L/S PUMP REHAB-COVE	5/1/2007	3,379.82
1339300469 L/S- FITNESS BARN RELOCATE	5/1/2007	3,762.82
1339300471 L/S SONIC START	5/1/2007	1,044.76
1339300470 FLOW METER-CONTACT CHAMBER	5/7/2007	2,871.07
C07021 INSITUFORM	6/1/2007	25,000.28

152,336.00 11,168,159.06

EXHIBIT ELB-2
Schedules 1 through 17

**South Haven Sewer Works, Inc.
Cost of Equity Summary**

Line No.		Column A Cost of Capital	Column B Weight Factor	Column C Weighted Cost of Capital	Column D DCF Ibbotson Growth Rate
1	Capital Asset Price Model + Size Method	12.10%	0.5000	6.05%	12.10%
2	Fama and French Three-Factor Method	11.13%	0.1250	1.39%	11.13%
3	Discounted Cash Flow Method	13.92%	0.1250	1.74%	13.41%
4	Buildup Method	13.12%	0.1250	1.64%	13.12%
5	Historical Risk Premium Method	13.42%	0.1250	1.68%	13.42%
6	Arithmetic Mean Including Discounted Cash Flow	12.74%	1.0000	12.50%	12.64%
7	Geometric Mean Including Discounted Cash Flow	12.70%			12.60%
8	Arithmetic Mean Excluding Discounted Cash Flow	12.44%			12.44%
9	Geometric Mean Excluding Discounted Cash Flow	12.41%			12.41%
10	South Haven Pro-forma Cost of Capital	12.10%			

**South Haven Sewer Works, Inc.
Cost of Equity Summary**

Quality Adjustment Adjustments	
Adjustment for Unsystematic Risk and the Size per Morningstar	3.88%
Unsystematic Risk Personal Guarantee of Stock Holders	0.25%
Unsystematic Risk South Haven's substantially smaller than Proxy Group	0.50%
Risk Unique to Water Supply Industry = $(RI_i \text{ times ERP}) - \text{ERP}$	(2.23%)
Quality Adjustment	2.40%

South Haven Sewer Works, Inc.
Capital Asset Price Model Plus Size

K or SHSW Cost of Equity	=	<u>12.10%</u>
When		
Rf or Risk Free Investment	=	4.90%
+		
Proxy Group Beta Adjusted	0.395	
X		
(Rm - Rf) or Market Less Risk Free Investment	7.13%	
=		
Product of Beta Times Market Less Risk Free Investment	=	2.82%
=		
Minimum Cost of Equity	=	<u>7.72%</u>
+		
Adjustment for Unsystematic Risk and the Size of Per Ibbotoson at December 2005	=	3.88%
CAPM + Size Before Other Unsystematic Risk		<u>11.60%</u>
Unsystematic Risk Personal Guarantee of Stock Holders	=	0.25%
Unsystematic Risk Additional Stockholders Assets as Collateral		<u>0.25%</u>
K or SHSW Cost of Equity	=	<u>12.10%</u>

**South Haven Sewer Works, Inc.
Betas of Proxy Group**

**March 2007
Ibbotson
Beta**

American States Water Co.	0.27
Aqua America formerly Philadelphia Suburban	0.20
Artesian Resources	0.31
California Water Service Company	0.66
Connecticut Water Service Co.	0.30
Middlesex Water Company	0.40
Pennichuck Corp	0.05
SJW Corporation	0.74
Southwest Water Co.	0.48
York Water	0.54
<hr/> Totals	<hr/> 0.395

**South Haven Sewer Works, Inc.
Average Yields On
20-Year Treasury Bonds**

Month	30 Year Treasury Bonds Closing Yields*
January-06	
February-06	4.54%
March-06	4.73%
April-06	5.06%
May-06	5.20%
June-06	5.15%
July-06	5.13%
August-06	5.00%
September-06	4.85%
October-06	4.85%
November-06	4.69%
December-06	4.68%
<hr/>	
Average	4.90%
<hr/>	
*Source: Federal Reserve System	
Geometric Mean	4.89%
High	5.20%
Low	4.54%

**Differences Between The Annual Rates Of Return On
A Diversified Portfolio of Common Stocks And
The Annual Rates of Income From Holdings
Of U.S. Treasury Bonds
From 1926 - 2006**

Year	Rm-Rf	Year	Rm-Rf	Year	Rm-Rf	Year	Rm-Rf
1926	7.89%	1951	21.64%	1976	15.95%	2001	(17.41%)
1927	34.08%	1952	15.71%	1977	(14.32%)	2002	(27.69%)
1928	40.39%	1953	(3.83%)	1978	(1.34%)	2003	23.90%
1929	(11.89%)	1954	49.83%	1979	9.58%	2004	5.85%
1930	(28.22%)	1955	28.81%	1980	22.45%	2005	0.22%
1931	(46.67%)	1956	3.57%	1981	(16.46%)	2006	11.12%
1932	(11.88%)	1957	(14.22%)	1982	7.91%		
1933	50.87%	1958	40.09%	1983	12.13%		
1934	(4.62%)	1959	7.95%	1984	(5.47%)		
1935	44.86%	1960	(3.79%)	1985	20.91%		
1936	31.15%	1961	23.06%	1986	9.49%		
1937	(37.69%)	1962	(12.73%)	1987	(2.69%)		
1938	28.48%	1963	18.91%	1988	7.84%		
1939	(2.81%)	1964	12.33%	1989	22.68%		
1940	(12.01%)	1965	8.26%	1990	(11.36%)		
1941	(13.53%)	1966	(14.55%)	1991	22.33%		
1942	17.88%	1967	19.39%	1992	0.41%		
1943	23.46%	1968	5.56%	1993	2.82%		
1944	17.29%	1969	(14.45%)	1994	(5.28%)		
1945	34.10%	1970	(2.73%)	1995	29.83%		
1946	(10.11%)	1971	7.99%	1996	16.89%		
1947	3.58%	1972	13.11%	1997	26.72%		
1948	3.10%	1973	(21.17%)	1998	22.75%		
1949	16.54%	1974	(33.74%)	1999	15.47%		
1950	29.59%	1975	29.21%	2000	(15.61%)		

Rm = Annual return from a diversified stock portfolio.

Rf = Annual return from holdings of 20 year U.S. Treasury Bonds.

Source: Computed using data from Morningstar's Stocks, Bills, and Inflation 2007 Yearbook Classic Addition
2007 Yearbook Classic table A-A-1 pages 226 and 227 and Table A-7 pages 238 and 239 Edition
Market Results for 1926-2006.

South Haven Sewer Works, Inc.
Compare Times Interest Earned (TIE) Ratio
of Proxy Group to Determine Reasonableness of
South Haven's Cost of Equity

	Proxy Group	Then South Should Not Be Less Than	Effective Tax Rate
Average	3.36	13.92%	40.08%
Median	3.61	15.40%	40.08%
Geometric Mean	3.21	13.04%	40.08%

$$TIE = (W_d K_d) + [(W_p K_p) / (1 - T)] + [W_e K_e / (1 - T)]$$

Divided By
 $W_d K_d$

Where W_d , W_p , and W_e represent the percentage of debt and preferred and common stock.
and where K_d , K_p , and K_e are embedded cost of debt and preferred and common stock.
and where T is the tax rate.

The calculations for Median, Average and Geometric Mean TIE Ratio's of the Proxy Group
to support South Haven's Cost if Equity if South Haven would obtain the Same TIE Ratio's of the Proxy Group.

	Average	Median	Geometric Mean
Weighted Cost of Debt	0.0377464	0.0377464	0.0377464
Plus			
Equity as % of Capital	0.3834518	0.3834518	0.3834518
Times Cost of Equity	0.1392052	0.1539515	0.1303574
Weighted Cost of Equity	0.0533785	0.0590330	0.0499858
Divided By			
Tax Rate is 1 minus SH's Tax Rate	0.5992099	0.5992099	0.5992099
Equals	0.0890815	0.0985181	0.0834195
Sum of Weighted Cost of Debt and Weighted Cost of Equity Divided 1 minus the Tax Rate	0.1268279	0.1362644	0.1211659
Divided By			
Weighted Cost of Debt	0.0377464	0.0377464	0.0377464
Equals TIE	3.3600001	3.6100000	3.2100001

**South Haven Sewer Works
Debt Service Coverage Ratio (DSC Ratio)
and
Times Interest Earned (TIE) Ratio**

	2005 Average	2005 Median	2005 Geomean
Debt Service Coverage Ratio (DSC Ratio), which represents Net Income Plus Interest Expense Plus Depreciation Plus Amortization to Interest Expense Plus Current Maturties of Long Term Debt			
Proxy Group	2.92	2.70	2.60
South Haven 2006	1.72	1.72	1.72
South Haven Pro-forma	1.96	1.96	1.96
Increase (Decrease) Compared to Proxy Group	(0.96)	(0.74)	(0.64)
% Increase (Decrease) Compared to Proxy Group	(32.8%)	(27.3%)	(24.6%)
Times Interest Earned Ratio (TIE Ratio), which represents Income Before Taxes and Interest Expense to Interest Expense			
Proxy Group	3.39	3.61	3.21
South Haven 2006	2.02	2.02	2.02
South Haven Pro-forma	2.73	2.73	2.73
Increase (Decrease) Compared to Proxy Group	(0.66)	(0.88)	(0.48)
% Increase (Decrease) Compared to Proxy Group	(19.5%)	(24.4%)	(14.8%)

**Fama and French
Capital Asset Price Model Extension**

When			
Rf or Risk Free Investment	=	4.90%	
	+		
Proxy Group Coefficient	0.34		
	x		
(Rm - Rf) or Market Less Risk Free Investment	7.13%		
	=		
Product of Beta Times Market Less Risk Free Investment	=	2.40%	
	=		
Minimum Cost of Equity	=	7.30%	
	+		
Small Minus Big Coefficient	2.47		
	x		
Expected Small Minus Big Risk Premium Estimated As The Difference Between The Historical Average Annual Returns On The Small-Cap and Large-Cap Portfolios	3.26%		
	=		8.03%
	+		
High Minus Low Coefficient	(1.19)		
	x		
Expected High-Minus-Low Risk Premium, Estimated As The Difference Between The Historical Average Annual Returns On High Book-To-Low Book To Market Portfolios	3.96%		
	=		(4.70%)
			10.63%
Unsystematic Risk Stockholders Personal Guarantee		0.25%	
Unsystematic Risk South Haven Size Compared to Proxy Group		0.25%	
Cost of Equity		11.13%	

**South Haven Sewer Works, Inc.
Fama and French
SMB and HNL**

	FF-Large Growth Stocks*	FF-Large Value Stocks*	FF-Small Growth Stocks*	FF-Small Value Stocks*
1928	48.05%	23.63%	34.86%	40.96%
1929	(21.07%)	(3.93%)	(44.23%)	(35.77%)
1930	(26.44%)	(43.16%)	(35.85%)	(46.38%)
1931	(36.96%)	(58.24%)	(42.70%)	(51.87%)
1932	(7.93%)	(3.26%)	(5.25%)	1.35%
1933	44.65%	116.91%	159.41%	118.69%
1934	11.06%	(21.51%)	35.89%	8.51%
1935	42.22%	51.14%	48.34%	53.16%
1936	26.46%	48.12%	37.10%	73.19%
1937	(34.12%)	(41.07%)	(48.64%)	(51.47%)
1938	33.20%	25.20%	43.81%	26.21%
1939	7.73%	(12.51%)	10.72%	(3.55%)
1940	(9.81%)	(2.62%)	0.57%	(9.83%)
1941	(12.67%)	(.88%)	(17.34%)	(4.82%)
1942	13.17%	33.71%	16.76%	35.00%
1943	22.04%	44.02%	45.08%	91.82%
1944	16.11%	41.98%	41.23%	49.71%
1945	31.95%	49.06%	64.28%	74.61%
1946	(8.29%)	(8.29%)	(12.40%)	(7.36%)
1947	4.10%	8.66%	(8.38%)	5.34%
1948	3.35%	5.09%	(7.16%)	(2.30%)
1949	23.31%	18.71%	23.52%	21.04%
1950	23.11%	55.22%	31.01%	52.16%
1951	20.05%	14.36%	16.26%	12.27%
1952	13.38%	19.54%	8.55%	8.59%
1953	2.29%	(7.04%)	(.68%)	(6.92%)
1954	47.79%	77.32%	46.20%	63.43%
1955	28.50%	29.78%	13.95%	23.47%
1956	6.52%	3.37%	7.65%	5.98%
1957	(9.14%)	(22.72%)	(16.99%)	(15.90%)
1958	41.62%	72.30%	75.22%	69.67%
1959	13.15%	18.82%	21.42%	17.42%
1960	(2.36%)	(8.56%)	(1.78%)	(6.02%)

**South Haven Sewer Works, Inc.
Fama and French
SMB and HNL**

	FF-Large Growth Stocks*	FF-Large Value Stocks*	FF-Small Growth Stocks*	FF-Small Value Stocks*
1961	26.43%	28.89%	22.20%	30.85%
1962	(10.89%)	(3.09%)	(22.33%)	(9.47%)
1963	21.88%	32.35%	7.98%	28.34%
1964	14.48%	19.16%	8.13%	22.90%
1965	13.36%	22.42%	39.99%	42.50%
1966	(10.77%)	(10.21%)	(5.32%)	(7.76%)
1967	29.17%	31.74%	88.42%	67.55%
1968	4.03%	27.08%	32.73%	45.81%
1969	2.88%	(16.39%)	(23.68%)	(25.84%)
1970	(5.65%)	10.63%	(20.25%)	6.62%
1971	23.94%	12.55%	25.86%	14.47%
1972	21.32%	18.62%	0.39%	7.28%
1973	(21.79%)	(3.67%)	(45.07%)	(27.23%)
1974	(29.24%)	(23.40%)	(31.90%)	(19.02%)
1975	34.44%	55.90%	61.32%	57.12%
1976	17.54%	44.62%	38.20%	59.13%
1977	(9.46%)	1.64%	19.35%	23.82%
1978	7.00%	3.48%	17.65%	22.12%
1979	16.59%	22.67%	48.84%	38.33%
1980	35.20%	16.45%	52.66%	22.28%
1981	(7.13%)	12.80%	(11.53%)	17.68%
1982	21.48%	27.67%	19.72%	39.86%
1983	14.67%	26.92%	22.12%	47.58%
1984	(.72%)	16.17%	(12.84%)	7.52%
1985	32.64%	31.75%	28.91%	32.12%
1986	14.38%	21.82%	1.95%	14.50%
1987	7.43%	(2.76%)	(12.24%)	(7.12%)
1988	12.53%	25.96%	16.63%	30.76%
1989	36.11%	29.70%	20.58%	15.70%
1990	1.06%	(12.75%)	(17.74%)	(25.13%)
1991	43.33%	27.35%	54.73%	40.56%
1992	6.41%	23.57%	5.82%	34.76%
1993	2.38%	19.51%	12.64%	29.41%

**South Haven Sewer Works, Inc.
Fama and French
SMB and HNL**

	FF-Large Growth Stocks*	FF-Large Value Stocks*	FF-Small Growth Stocks*	FF-Small Value Stocks*
1994	1.95%	(5.78%)	(4.36%)	3.21%
1995	37.16%	37.68%	35.13%	27.69%
1996	21.25%	13.35%	12.36%	20.71%
1997	31.61%	31.88%	15.29%	37.29%
1998	34.64%	16.23%	3.04%	(8.63%)
1999	29.43%	(.22%)	54.75%	5.59%
2000	(13.63%)	5.80%	(24.15%)	(.80%)
2001	(15.59%)	(1.18%)	0.16%	40.24%
2002	(21.50%)	(32.53%)	(30.87%)	(12.41%)
2003	26.29%	35.07%	53.20%	74.69%
2004	6.53%	18.91%	12.54%	26.59%
2005	2.82%	12.17%	5.45%	3.53%
2006	10.26%	21.07%	11.67%	21.76%
Average	11.03%	15.38%	14.29%	19.34%

SMB

Large Cap	11.03%
Small Cap	14.29%
	<u>3.26%</u>

HML

Large Cap	15.38%
Small Cap	19.34%
	<u>3.96%</u>

*Source Morningstar (Ibbotson) Table 8-10 Growth and Value Series
Year by Year Returns p 159-160 SBBI 2007 Yearbook.

**South Haven Sewer Works, Inc.
AUS Utility Reports Proxy Group**

	D0/P0	D1/P0	(g)	(k) Minimum		Estimated
	Current Dividend Yield	Forward Dividend Yield	Growth Rate	Cost Of Equity	SHSW Quality Adjustment	Cost Of Equity
AUS Reports Historical (Earnings)	3.22%	3.33%	3.63%	6.97%	0.50%	7.47%
AUS Reports Historical (Dividends)	3.22%	3.30%	2.44%	5.74%	0.50%	6.24%
AUS Reports Historical (Book Value)	3.22%	3.35%	4.09%	7.44%	0.50%	7.94%
AUS Average Dividends, Earnings, and Book Value	3.22%	3.33%	3.39%	6.72%	0.50%	7.22%
AUS 5 Year Forecast with Ibbotson Growth Rate at March 31, 2007 (See Exhibit ELB-2 Schedule 14)	3.22%	3.52%	9.39%	12.91%	0.50%	13.41%
AUS 5 Year Forecast with Morningstar Dividends Growth Rate at December 31, 2006	3.22%	3.35%	4.09%	7.44%	0.50%	7.94%
AUS Morningstar Earnings Sustainable Growth Rate Growth Rate at May 2, 2007	3.22%	3.34%	3.73%	7.07%	0.50%	7.57%
AUS Average Morningstar Dividends and Earnings Growth	3.22%	3.34%	3.91%	7.25%	0.50%	7.75%
Average Morningstar	3.22%	3.43%	6.65%	10.08%	0.50%	10.58%

**South Haven Sewer Works, Inc.
Six-Month Dividend Yields**

	Jan-06	Feb-06	Mar-06	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Three Month Ave	Six Month Ave	Twelve Month Ave
American. States Water Co.	2.80%	2.70%	2.50%	2.40%	2.40%	2.70%	2.70%	2.40%	2.40%	2.20%	2.40%	2.50%	2.37%	2.43%	2.51%
Aqua America, Inc. formerly Philadelp	1.50%	1.50%	1.60%	1.70%	1.90%	2.00%	2.00%	2.00%	2.10%	1.90%	1.90%	2.00%	1.93%	1.98%	1.84%
Artesian Resources	3.00%	3.00%	2.90%	2.90%	2.90%	3.20%	3.20%	3.10%	3.20%	3.30%	3.20%	3.30%	3.27%	3.22%	3.10%
California Water Service Company	2.90%	2.80%	2.70%	2.70%	3.70%	3.80%	3.80%	4.10%	4.30%	3.10%	2.80%	2.90%	2.93%	3.50%	3.30%
Connecticut Water Service Co.	3.50%	3.40%	3.40%	3.20%	3.00%	3.40%	3.40%	3.10%	3.00%	3.90%	3.90%	3.70%	3.83%	3.50%	3.41%
Middlesex Water Company	3.70%	3.70%	3.80%	3.70%	3.50%	4.10%	4.10%	3.70%	3.70%	3.60%	3.70%	3.70%	3.67%	3.75%	3.75%
Pennichuck	3.00%	2.70%	2.80%	2.80%	3.50%	4.00%	4.00%	3.40%	3.60%	3.50%	3.40%	3.30%	3.40%	3.53%	3.33%
SJW Corporation	2.20%	2.20%	2.20%	2.40%	3.20%	3.40%	3.40%	3.50%	3.80%	1.70%	1.60%	1.60%	1.63%	2.60%	2.60%
Southwest Water Company	1.50%	1.40%	1.40%	1.40%	2.50%	2.50%	2.50%	2.00%	1.80%	1.60%	1.50%	1.80%	1.63%	1.87%	1.83%
York Water Company	2.50%	2.50%	2.50%	2.50%	1.60%	1.90%	1.90%	1.60%	1.60%	2.30%	2.40%	2.60%	2.43%	2.07%	2.16%
Turner Average	2.66%	2.59%	2.58%	2.57%	2.82%	3.10%	3.10%	2.89%	2.95%	2.71%	2.68%	2.74%	2.71%	2.93%	2.85%
Turner Median													2.93%	3.22%	3.10%
Turner Geometric Mean													2.61%	2.85%	2.77%

Source:AUS Reports

**South Haven Sewer Works, Inc.
Dividends and Earnings
Historical Growth Rates**

	10 Year Earnings Growth	10 Year Dividends Growth	10 Year Book Value Growth	5 Year Earnings Growth	5 Year Dividends Growth	5 Year Book Value Growth
American States formerly So Cal Water	1.17%	0.71%	2.82%	(2.46%)	0.73%	3.04%
Aqua America formerly Phil Suburban	6.48%	2.43%	5.09%	7.52%	5.39%	9.01%
Artesian	3.50%	2.99%	2.83%	3.41%	2.76%	2.76%
California Water Service Company*	(.70%)	0.70%	2.47%	2.16%	0.57%	3.41%
Connecticut Water Service Co.	1.22%	0.85%	3.22%	(.06%)	0.97%	4.34%
Middlesex Water Company	0.47%	1.62%	3.81%	1.52%	1.64%	2.40%
Pennichuck				(19.03%)	3.50%	2.73%
SJW Corporation	2.41%	0.10%	0.94%	8.28%	4.25%	9.12%
South West Water	4.04%	3.46%	3.48%	(2.39%)	7.00%	9.12%
York Water Company	3.87%	2.56%	3.16%	5.27%	4.01%	4.67%
Average	2.57%	1.80%	3.13%	4.69%	3.08%	5.06%

Does not include negative growth numbers.

Source: AUS Reports and Proxy Group Financial Statements

South Haven Sewer Works, Inc.
C.A Turner Proxy Group
Earnings, Dividends, and Book Value Data

	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
Earnings Per Share												
American States Water Formerly South	1.580	1.19	0.780	1.34	1.41	1.42	1.19	0.99	1.04	1.13	1.03	0.95
Aqua America, Inc. formerly Philadelphi	0.710	0.638	0.593	0.59	0.53	0.49	0.34	0.40	0.34	0.30	0.29	0.26
Artesian Resources	1.260	1.12	0.990	1.17	1.07	0.79	0.99	0.98	0.72	0.69		
California Water Service Company	1.470	1.46	1.210	1.25	0.97	1.31	1.44	1.31	1.71	1.42	1.13	1.17
Connecticut Water Service Co.	0.890	1.15	1.110	1.08	1.13	1.04	0.99	0.94	0.93	0.92	0.90	0.92
Middlesex Water Company	0.720	0.74	0.610	0.73	0.66	0.50	0.76	0.71	0.67	0.60	0.68	0.67
Pennichuck Corporation	0.130	0.57	0.390	0.73	1.13	1.16	0.84	0.89	0.65	0.63		
SJW Corporation	1.200	1.08	1.020	0.78	0.77	0.58	0.87	0.84	0.80	0.96	0.20	0.17
Southwest Water Company	0.350	0.25	0.470	0.42	0.36	0.40	0.45	0.27	0.25	0.20	0.17	0.13
York Water Company	0.840	0.8	0.700	0.60	0.65	0.63	0.53	0.53	0.54	0.53	0.46	0.49
Average												

Dividends Per Share												
American States Water Formerly South	0.900	0.888	0.884	0.871	0.867	0.857	0.853	0.840	0.830	0.820	1.200	1.200
Aqua America formerly Philadelphia Sut	0.399	0.368	0.342	0.323	0.302	0.282	0.269	0.256	0.239	0.38	0.36	0.35
Artesian Resources	0.870	0.830	0.798	0.773	0.740	0.730	0.710	0.650	0.610	0.600		
California Water Service Company	1.140	1.130	1.125	1.120	1.115	1.100	1.085	1.070	1.055	1.040	1.020	0.990
Connecticut Water Service Co.	0.845	0.835	0.825	0.814	0.804	0.795	0.787	0.778	0.769	0.755	0.747	0.733
Middlesex Water Company	0.673	0.663	0.649	0.634	0.623	0.613	0.595	0.575	0.563	0.553	0.543	0.529
Pennichuck Corporation	0.660	0.650	0.630	0.610	0.570	0.546	0.518	0.443	0.398			
SJW Corporation	0.530	0.510	0.485	0.460	0.429	0.410	0.400	0.390	0.380	0.740	0.720	0.700
Southwest Water Company	0.200	0.180	0.160	0.150	0.140	0.135	0.110	0.142	0.138	0.104	0.10	0.16
York Water Company	0.636	0.591	0.550	0.53	0.51	0.485	0.47	0.47	0.46	0.45	0.45	0.45
Average												

South Haven Sewer Works, Inc.
C.A Turner Proxy Group
Earnings, Dividends, and Book Value Data

	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
Book Value Per Share												
American States Water Formerly South	15.72	15.01	13.970	14.05	13.54	12.99	11.95	11.61	11.24	11.01	15.50	15.16
Aqua America, Inc. formerly Philadelphia	6.30	5.88	5.333	4.35	4.14	3.83	3.41	3.28	2.96	4.42	4.12	3.93
Artesian Resources	14.49	13.96	13.580	14.48	11.33	10.90	11.00	10.37	10.06	11.38		
California Water Service Company	15.98	15.66	14.440	13.12	12.95	13.13	12.89	12.49	12.15	11.47	10.97	10.72
Connecticut Water Service Co.	11.52	10.94	10.460	10.07	9.25	8.82	8.55	8.25	7.99	7.73	7.44	7.09
Middlesex Water Company	8.36	7.90	7.560	7.39	7.11	7.00	7.05	4.54	6.00	5.85	5.76	5.57
Pennichuck Corporation	12.32	9.41	9.460	9.54	9.68	9.13	8.45	8.16	6.79			
SJW Corporation	10.73	10.00	9.105	8.40	8.18	7.90	7.88	7.53	7.02	12.62	11.16	10.67
Southwest Water Company	6.53	6.17	5.702	4.77	4.38	3.91	3.61	4.25	3.97	4.86	4.72	4.68
York Water Company	7.27	6.98	6.080	5.85	5.69	5.33	5.16	5.10	4.97	4.83	4.27	4.22

Source: Standard & Poors Compustat Services, CA Turner Reports, and Morningstar.

**South Haven Sewer Works, Inc.
Morningstar 5 Year Dividend
and Sustainable Growth Rate**

Company	5 Year	Sustainable
	Dividend	Growth
	12/31/07	EPS
	5/2/07	
American. States Water Co.	0.98%	3.50%
Aqua America, Inc. formerly Philadelphia Suburban	7.95%	3.70%
Artesian Resources	4.45%	0.00%
California Water Service Company	0.62%	1.50%
Connecticut Water Service Co.	1.23%	2.40%
Middlesex Water Company	1.86%	0.40%
Pennichuck	3.04%	0.00%
SJW Corporation	5.67%	12.30%
Southwest Water Company	8.92%	0.00%
York Water Company	6.17%	2.30%
	<hr/> 4.09%	<hr/> 3.73%

**South Haven Sewer Works, Inc.
Buildup Method**

Long-term Government Bonds Yields for 2006*	4.91%
Equity Risk Premium per Ibbotson see Schedule for Rm-Rf Total Returns	6.56%
Size Premium for Water Supply Industry per Morningstar Statistics for SIC Code 494	3.88%
Risk Unique to Water Supply Industry = $(R_i \text{ times ERP}) - \text{ERP}$	(2.23%)
Cost of Equity	<u><u>13.12%</u></u>

*See Morningstar's Table B-9 SBBI Valuation Edition 2007 Yearbook page 245.

**South Haven Sewer Works, Inc.
Buildup Method**

Risk Unique to Water Supply Industry

R_i or Ibbotson Peer Group Beta 0.66

Equity Risk Premium per Ibbotson see Schedule for R_m-R_f 6.56%

R_i Times ERP 4.33%

Less ERP (6.56%)

Risk Unique to Water Industry (2.23%)

**South Haven Sewer Works, Inc.
Historical Risk Premium Method**

Risk Premium Ibbotson spread between stocks and bonds (rm-rf) total returns.

6.559%

Incremental Cost of Debt (Centier Bank Loan)

Long Term Debt Plant- 20 Yr.	\$3,742,665	72.11%	6.50%	4.69%
Long Term Debt Equipment- 20 yr	\$1,278,638	24.64%	7.95%	1.96%
Long-term Debt additional Plant 20 yr.	\$128,450	2.47%	7.98%	0.20%
2004 Ford Explorer	\$21,604	0.42%	0.02%	0.00%
2007 Ford Ranger	\$18,580	0.36%	4.90%	0.02%
	<u>\$5,189,937</u>	<u>100.00%</u>		

Weighted Cost of Long-term Debt

6.861%

Cost of Equity

13.420%

**Differences Between The Annual Rates Of Return On
A Diversified Portfolio of Common Stocks And
The Annual Rates of Return From Holdings
Of U.S. Treasury Bonds
From 1926 - 2006**

Year	Rm-Rf	Rm	Truly Riskless Rf*			Rm	Risky Rf**	
1926	7.89%	11.620%	3.730%	7.89%	0.00000%	11.62%	7.77%	3.85%
1927	34.08%	37.490%	3.410%	34.08%	0.00000%	37.49%	8.93%	28.56%
1928	40.39%	43.610%	3.220%	40.39%	0.00000%	43.61%	0.10%	43.51%
1929	(11.89%)	(8.420%)	3.470%	(11.89%)	0.00000%	(8.42%)	3.42%	(11.84%)
1930	(28.22%)	(24.900%)	3.320%	(28.22%)	0.00000%	(24.90%)	4.66%	(29.56%)
1931	(46.67%)	(43.340%)	3.330%	(46.67%)	0.00000%	(43.34%)	(5.31%)	(38.03%)
1932	(11.88%)	(8.190%)	3.690%	(11.88%)	0.00000%	(8.19%)	16.84%	(25.03%)
1933	50.87%	53.990%	3.120%	50.87%	0.00000%	53.99%	(.07%)	54.06%
1934	(4.62%)	(1.440%)	3.180%	(4.62%)	0.00000%	(1.44%)	10.03%	(11.47%)
1935	44.86%	47.670%	2.810%	44.86%	0.00000%	47.67%	4.98%	42.69%
1936	31.15%	33.920%	2.770%	31.15%	0.00000%	33.92%	7.52%	26.40%
1937	(37.69%)	(35.030%)	2.660%	(37.69%)	0.00000%	(35.03%)	0.23%	(35.26%)
1938	28.48%	31.120%	2.640%	28.48%	0.00000%	31.12%	5.53%	25.59%
1939	(2.81%)	(0.410%)	2.400%	(2.81%)	0.00000%	(0.41%)	5.94%	(6.35%)
1940	(12.01%)	(9.780%)	2.230%	(12.01%)	0.00000%	(9.78%)	6.09%	(15.87%)
1941	(13.53%)	(11.590%)	1.940%	(13.53%)	0.00000%	(11.59%)	0.93%	(12.52%)
1942	17.88%	20.340%	2.460%	17.88%	0.00000%	20.34%	3.22%	17.12%
1943	23.46%	25.900%	2.440%	23.46%	0.00000%	25.90%	2.08%	23.82%
1944	17.29%	19.750%	2.460%	17.29%	0.00000%	19.75%	2.81%	16.94%
1945	34.10%	36.440%	2.340%	34.10%	0.00000%	36.44%	10.73%	25.71%
1946	(10.11%)	(8.070%)	2.040%	(10.11%)	0.00000%	(8.07%)	(.10%)	(7.97%)
1947	3.58%	5.710%	2.130%	3.58%	0.00000%	5.71%	(2.62%)	8.33%
1948	3.10%	5.500%	2.400%	3.10%	0.00000%	5.50%	3.40%	2.10%
1949	16.54%	18.790%	2.250%	16.54%	0.00000%	18.79%	6.45%	12.34%

**Differences Between The Annual Rates Of Return On
A Diversified Portfolio of Common Stocks And
The Annual Rates of Return From Holdings
Of U.S. Treasury Bonds
From 1926 - 2006**

Year	Rm-Rf	Rm	Truly Riskless Rf*			Rm	Risky Rf**	
1950	29.59%	31.710%	2.120%	29.59%	0.00000%	31.71%	0.06%	31.65%
1951	21.64%	24.020%	2.380%	21.64%	0.00000%	24.02%	(3.93%)	27.95%
1952	15.71%	18.370%	2.660%	15.71%	0.00000%	18.37%	1.16%	17.21%
1953	(3.83%)	(0.990%)	2.840%	(3.83%)	0.00000%	(0.99%)	3.64%	(4.63%)
1954	49.83%	52.620%	2.790%	49.83%	0.00000%	52.62%	7.19%	45.43%
1955	28.81%	31.560%	2.750%	28.81%	0.00000%	31.56%	(1.29%)	32.85%
1956	3.57%	6.560%	2.990%	3.57%	0.00000%	6.56%	(5.59%)	12.15%
1957	(14.22%)	(10.780%)	3.440%	(14.22%)	0.00000%	(10.78%)	7.46%	(18.24%)
1958	40.09%	43.360%	3.270%	40.09%	0.00000%	43.36%	(6.09%)	49.45%
1959	7.95%	11.960%	4.010%	7.95%	0.00000%	11.96%	(2.26%)	14.22%
1960	(3.79%)	0.470%	4.260%	(3.79%)	0.00000%	0.47%	13.78%	(13.31%)
1961	23.06%	26.890%	3.830%	23.06%	0.00000%	26.89%	0.97%	25.92%
1962	(12.73%)	(8.730%)	4.000%	(12.73%)	0.00000%	(8.73%)	6.89%	(15.62%)
1963	18.91%	22.800%	3.890%	18.91%	0.00000%	22.80%	1.21%	21.59%
1964	12.33%	16.480%	4.150%	12.33%	0.00000%	16.48%	3.51%	12.97%
1965	8.26%	12.450%	4.190%	8.26%	0.00000%	12.45%	0.71%	11.74%
1966	(14.55%)	(10.060%)	4.490%	(14.55%)	0.00000%	(10.06%)	3.65%	(13.71%)
1967	19.39%	23.980%	4.590%	19.39%	0.00000%	23.98%	(9.18%)	33.16%
1968	5.56%	11.060%	5.500%	5.56%	0.00000%	11.06%	(.26%)	11.32%
1969	(14.45%)	(8.500%)	5.950%	(14.45%)	0.00000%	(8.50%)	(5.07%)	(3.43%)
1970	(2.73%)	4.010%	6.740%	(2.73%)	0.00000%	4.01%	12.11%	(8.10%)
1971	7.99%	14.310%	6.320%	7.99%	0.00000%	14.31%	13.23%	1.08%
1972	13.11%	18.980%	5.870%	13.11%	0.00000%	18.98%	5.69%	13.29%
1973	(21.17%)	(14.660%)	6.510%	(21.17%)	0.00000%	(14.66%)	(1.11%)	(13.55%)
1974	(33.74%)	(26.470%)	7.270%	(33.74%)	0.00000%	(26.47%)	4.35%	(30.82%)

**Differences Between The Annual Rates Of Return On
A Diversified Portfolio of Common Stocks And
The Annual Rates of Return From Holdings
Of U.S. Treasury Bonds
From 1926 - 2006**

Year	Rm-Rf	Rm	Truly Riskless Rf*			Rm	Risky Rf**	
1975	29.21%	37.200%	7.990%	29.21%	0.00000%	37.20%	9.20%	28.00%
1976	15.95%	23.840%	7.890%	15.95%	0.00000%	23.84%	16.75%	7.09%
1977	(14.32%)	(7.180%)	7.140%	(14.32%)	0.00000%	(7.18%)	(.69%)	(6.49%)
1978	(1.34%)	6.560%	7.900%	(1.34%)	0.00000%	6.56%	(1.18%)	7.74%
1979	9.58%	18.440%	8.860%	9.58%	0.00000%	18.44%	(1.23%)	19.67%
1980	22.45%	32.420%	9.970%	22.45%	0.00000%	32.42%	(3.95%)	36.37%
1981	(16.46%)	(4.910%)	11.550%	(16.46%)	0.00000%	(4.91%)	1.86%	(6.77%)
1982	7.91%	21.410%	13.500%	7.91%	0.00000%	21.41%	40.36%	(18.95%)
1983	12.13%	22.510%	10.380%	12.13%	0.00000%	22.51%	0.65%	21.86%
1984	(5.47%)	6.270%	11.740%	(5.47%)	0.00000%	6.27%	15.48%	(9.21%)
1985	20.91%	32.160%	11.250%	20.91%	0.00000%	32.16%	30.97%	1.19%
1986	9.49%	18.470%	8.980%	9.49%	0.00000%	18.47%	24.53%	(6.06%)
1987	(2.69%)	5.230%	7.920%	(2.69%)	0.00000%	5.23%	(2.71%)	7.94%
1988	7.84%	16.810%	8.970%	7.84%	0.00000%	16.81%	9.67%	7.14%
1989	22.68%	31.490%	8.810%	22.68%	0.00000%	31.49%	18.11%	13.38%
1990	(11.36%)	(3.170%)	8.190%	(11.36%)	0.00000%	(3.17%)	6.18%	(9.35%)
1991	22.33%	30.550%	8.220%	22.33%	0.00000%	30.55%	19.30%	11.25%
1992	0.41%	7.670%	7.260%	0.41%	0.00000%	7.67%	8.05%	(0.38%)
1993	2.82%	9.990%	7.170%	2.82%	0.00000%	9.99%	18.24%	(8.25%)
1994	(5.28%)	1.310%	6.590%	(5.28%)	0.00000%	1.31%	(7.77%)	9.08%
1995	29.83%	37.430%	7.600%	29.83%	0.00000%	37.43%	31.67%	5.76%
1996	16.89%	23.070%	6.180%	16.89%	0.00000%	23.07%	(.93%)	24.00%
1997	26.72%	33.360%	6.640%	26.72%	0.00000%	33.36%	15.85%	17.51%
1998	22.75%	28.580%	5.830%	22.75%	0.00000%	28.58%	13.06%	15.52%
1999	15.47%	21.040%	5.570%	15.47%	0.00000%	21.04%	(8.96%)	30.00%

**Differences Between The Annual Rates Of Return On
A Diversified Portfolio of Common Stocks And
The Annual Rates of Return From Holdings
Of U.S. Treasury Bonds
From 1926 - 2006**

Year	Truly Riskless			Risky		
	Rm-Rf	Rm	Rf*	Rm	Rf**	
2000	(15.61%)	(9.110%)	6.500%	(15.61%)	0.00000%	(9.11%) (30.29%)
2001	(17.41%)	(11.880%)	5.530%	(17.41%)	0.00000%	(11.88%) (15.58%)
2002	(27.69%)	(22.100%)	5.590%	(27.69%)	0.00000%	(22.10%) (39.94%)
2003	23.90%	28.700%	4.800%	23.90%	0.00000%	28.70% 27.25%
2004	5.85%	10.870%	5.020%	5.85%	0.00000%	10.87% 2.36%
2005	0.22%	4.910%	4.690%	0.22%	0.00000%	4.91% (2.90%)
2006	11.12%	15.800%	4.680%	11.12%	0.00000%	15.80% 14.61%

*Long-term Bonds Income Returns

**Long-term Government Bonds Total Returns

See Table B-6 Morningstar Stocks, Bonds, Bills, and Inflation Market Results
from 1926-2006 2007 Yearbook Valuation Editions and

Morningstar's Stocks, Bills, and Inflation 2007 Yearbook Classic Addition

2007 Yearbook Classic Table A-1 pages 226 and 227 and Table A-7 pages 238 and 239 Edition
Market Results for 1926-2006.

South Haven Sewer Works, Inc.
Performance Measurement Comparison To Proxy Group

	2005 Average	2005 Geomean	2005 SHSW	2006 SHSW
Liquidity Ratios:				
Quick Ratio	0.95	0.67	1.14	1.19
Current Ratio	1.39	0.92	1.22	1.26
Absolute Ratio	0.41	0.03	0.26	0.38
Profitability Ratios:				
Operation & Maintenance Expense % of Revenues	58.6%	57.24%	61.9%	63.3%
Net Operating Income % of Revenues	19.7%	18.18%	19.9%	19.3%
Interest Expense % of Revenues	8.2%	7.54%	10.8%	11.3%
Net Income From Continuing Operations as % of Revenues	11.4%	9.42%	8.7%	8.2%
Net Income From Continuing Operations as % of Stockholder's Equity	8.3%	7.14%	8.0%	7.3%
Income Available For Common Equity as % of Revenues	12.0%	9.73%	8.7%	8.2%
Dividend Payout Ratio as % of Income Available For Common Equity	111.3%	80.83%	None	None

South Haven Sewer Works, Inc.
Performance Measurement Comparison To Proxy Group

	2005 Average	2005 Geomean	2005 SHSW	2006 SHSW
Return On Average Common Equity	8.9%	7.76%	8.05%	7.64%
Leverage Ratios:				
Stockholder's Equity % of Total Assets	50.6%	50.24%	34.7%	35.9%
Net Utility Plant To Stockholder's Equity	2.76	2.73	2.57	2.41
Long Term Debt and Current Note Payable Liabilities To Stockholders Equity	1.10	1.07	1.54	1.43
Long Term Debt and Current Notes Payable As % of Total Assets	32.7%	32.29%	53.4%	51.5%
Long Term and Current Portion of Long Term Debt As % of Total Capitalization	51.7%	51.34%	60.6%	58.9%
Stockholder's Equity As% of Total Capitalization	48.3%	48.0%	39.4%	41.1%
Coverage Ratio:				
Income Before Taxes and Interest Expense to Interest Expense (Times Interest Earned (TIE) Ratio)	3.39	3.21	2.16	2.02
Net Income Plus Interest Expense Plus Depreciation Plus Amortization to Interest Expense Plus Current Maturties of Long Term Debt (Debt Service Coverage (DSC) Ratio)	2.92	2.60	1.82	1.72
Sales Ratios:				
Sales to Total Assets	0.24	0.23	0.32	0.32

South Haven Sewer Works, Inc.
Performance Measurement Comparison To Proxy Group

	2005 Average	2005 Geomean	2005 SHSW	2006 SHSW
Sales to Stockholder's Equity	0.80	0.76	0.91	0.90
Days Sales Outstanding in Receivables	50.00	48.11	53.6	53.3
Days Expenses Outstanding In Payables	54.96	48.31	8.1	23.9
Size of Operations				
Number of Customers	233,592	144,146	3,717	3,989

South Haven Sewer Works, Inc.
Performance Measurement Comparison To Proxy Group

	2005 Average	2005 Geomean	2005 SHSW	2006 SHSW
Annual Revenues In Million Dollars	\$ 165.5	\$103.5	\$ 3.0	\$ 3.2
Annual Water & Sewer Revenues In Million Dollars	\$ 152.3	\$91.7	\$ 3.0	\$ 3.2
Total Assets In Million Dollars	\$ 670.2	\$448.7	\$ 9.6	\$ 10.1
Gross Plant In Service In Million Dollars	\$ 740.7	\$483.6	\$ 10.6	\$ 11.0
Gross Plant Investment In Service per Customer	\$ 3,399.41	\$3,355.01	\$ 2,844.18	\$ 2,761.55
Annual Revenues/ Customer	\$ 764.46	\$717.84	\$ 819.47	\$ 813.16
Annual Revenues / Customer / Month	\$ 63.70	\$59.82	\$ 68.29	\$ 67.76
Annual Operating Cost / Customer	\$ 631.57	\$573.77	\$ 656.09	\$ 655.98
Year End Debt in Millions	\$ 229.9	\$145.1	5.1	5.2
Year End Cost of Debt in Millions	\$ 12.1	\$7.8	\$ 0.330	\$ 0.367
Year End Cost of Debt As %	5.44%	5.4%	6.45%	7.08%
Year End Equity In Millions	\$ 205.8	\$136.4	\$ 3.3	\$ 3.6
Net Operating Profit In Millions	\$ 19.8	\$9.7	\$ 0.27	\$ 0.27
Dividends Paid in Millions	\$ 12.6	\$8.1	\$ -	\$ -
Dividends as % of Revenues	8.94%	7.9%	none	none
Effective Tax Rate	36.63%	35.49%	30.9%	28.9%

Source: AUS Utility Reports and Financial Statements of the Companies

South Haven Sewer Works, Inc
Proxy Group Operating Expense Comparison
Per Customer

	2002	2003	2004	2005	2006
Southwest Water	\$1,340.06	\$1,724.55	\$1,518.60	\$1,568.19	
San Jose Water	\$570.16	\$578.19	\$646.71	\$679.35	
American States Water	\$607.64	\$629.33	\$668.89	\$677.79	
Pennichuck	\$605.16	\$591.00	\$608.98	\$629.67	
California Water	\$507.32	\$529.34	\$579.27	\$586.47	
Middlesex Water	\$538.13	\$479.59	\$503.24	\$506.11	
Artesian	\$388.28	\$398.22	\$418.46	\$478.62	
Connecticut Water	\$397.45	\$386.20	\$406.52	\$464.28	
Aqua America	\$369.25	\$346.36	\$379.32	\$412.98	
York Water	\$259.76	\$268.31	\$294.48	\$312.21	
Average	\$558.32	\$593.11	602.45	631.57	
Geometric Mean	\$507.59	\$516.29	542.70	573.77	
South Haven	\$523.40	\$582.74	666.87	656.09	655.98

**South Haven Sewer Works, Inc.
Comparison of Proxy Group Dividends Paid to
South Haven Dividends Paid**

	2002	2003	2004	2005
Proxy Group Average Dividends Paid	\$9,827,153	\$10,423,602	\$11,564,990	\$12,593,046
South Haven Average Dividends Paid	None	None	None	None
Proxy Group Dividend Payout as % of Net Income	69.9%	83.7%	75.1%	111.3%
South Haven Dividend Payout as % of Net Income	None	None	None	None
Proxy Group Dividends Paid as Percent of Revenues	9.0%	9.0%	9.0%	8.8%
South Haven Dividends Paid as Percent of Revenues	None	None	None	None
If South Haven Paid Dividends at Same Percent of Revenue as Proxy Group It Would Have Paid	\$219,764	\$243,222	\$255,683	\$268,005

**South Haven Sewer Works, Inc.
Business Risk Comparison
of
Proxy Group and South Haven
From 1984 to 2006**

Business Risk = **Standard deviation of net income
Divided by
Mean of net income**

SHSW Business Risk

Standard deviation of Net Operating Income per share	\$60,223
Mean of earnings per share	\$36,589
Business Risk	<u>1.65</u>
Percentage Change in Net Operating Earnings	85.85%
Percentage Change In Revenues	9.80%
Degree of Operating Leverage	<u>8.76</u>

Proxy Group Business Risk

Average Standard deviation of earnings per share	\$0.24
Average Mean of earnings per share	\$0.79
Business Risk	<u>0.30</u>

Comparison of SHSW To Proxy Group

Business Risk SHSW	1.65	
Business Risk Proxy Group	0.30	
SHSW Risk Greater or (Less) Than Proxy Group	<u>5.48</u>	Times Greater or (Less)

South Haven Sewer Works, Inc.
Long-term Debt to Total Capitalization
Comparison of Proxy Group to South Haven

	2002	2003	2004	2005	2006
Artesian	55.7%	60.5%	60.30%	62.03%	
Aqua American formerly Philadelphia	55.6%	52.8%	52.72%	56.23%	
California Water	55.4%	52.4%	48.66%	48.67%	
American States Water formerly So.	53.4%	52.0%	47.75%	52.85%	
Southwest Water	50.4%	42.6%	48.44%	46.84%	
Middlesex Water	52.2%	54.0%	53.98%	58.09%	
Pennichuck	47.2%	47.5%	47.09%	47.60%	
York Water	46.8%	45.5%	51.94%	53.99%	
Connecticut Water	44.6%	43.6%	42.93%	47.56%	
San Jose Water	41.7%	46.4%	43.79%	42.64%	
Proxy Group Average	50.3%	49.7%	49.8%	51.7%	
Proxy Group Median	51.3%	49.7%	48.6%	50.8%	
Proxy Group Geometric Mean	50.1%	49.5%	49.5%	51.3%	
South Haven	54.4%	54.9%	56.9%	60.6%	58.9%
South Haven Pro-forma					

South Haven Sewer Works, Inc.
Additions To Stockholders Equity

	1994	1995	1996	1997	1998	1999	2000	2001	2002
Common Stock	67,321	67,321	67,321	608,672	1,004,901	1,004,901	1,004,901	1,004,901	1,004,901
Paid In Capital	0	464,000	464,000	464,000	464,000	499,000	745,484	799,153	799,153
Total Capital from Stockholders	\$67,321	\$531,321	\$531,321	\$1,072,672	\$1,468,901	\$1,503,901	\$1,750,386	\$1,804,054	\$1,804,054
Retained Earnings	1,025,206	1,165,850	916,494	972,084	1,033,462	1,267,674	1,404,234	1,342,899	725,837
Total Stockholders Equity	<u>\$1,092,527</u>	<u>\$1,697,171</u>	<u>\$1,447,815</u>	<u>\$2,044,756</u>	<u>\$2,502,363</u>	<u>\$2,771,575</u>	<u>\$3,154,620</u>	<u>\$3,146,953</u>	<u>\$2,529,891</u>

South Haven Sewer Works, Inc.
Additions To Stockholders Equity

2003	2004	2005	2006	Increase (Decrease)
1,004,901	1,004,901	1,004,901	1,004,901	\$937,580
1,035,459	1,236,695	1,035,459	1,057,648	1,057,648
<hr/> \$2,040,360	<hr/> \$2,241,597	<hr/> \$2,040,360	<hr/> \$2,062,549	<hr/> \$1,995,228
827,950	1,032,922	1,289,320	1,554,838	529,632
<hr/> \$2,868,310	<hr/> \$3,274,518	<hr/> \$3,329,680	<hr/> \$3,617,387	<hr/> \$2,524,860

South Haven Sewer Works , Inc.
Net Income Comparison
For The Years Ended

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Operating Revenues	\$485,685	\$462,196	\$456,267	\$572,225	\$663,149	\$645,191	\$648,678	\$657,908	\$980,399	\$1,034,797
Operating & Maintenance Expense	332,037	360,565	364,095	413,987	453,762	523,328	598,401	715,079	792,374	849,373
% of Revenues	68.36%	78.01%	79.80%	72.35%	68.43%	81.11%	92.25%	108.69%	80.82%	82.08%
Depreciation & Amortization	47,370	40,287	57,039	48,030	49,274	52,161	49,615	49,281	54,347	46,697
% of Revenues	9.75%	8.72%	12.50%	8.39%	7.43%	8.08%	7.65%	7.49%	5.54%	4.51%
Other Taxes Other Than Income	60,647	26,282	59,501	33,322	30,325	42,200	37,320	45,188	55,917	55,592
% of Revenues	12.49%	5.69%	13.04%	5.82%	4.57%	6.54%	5.75%	6.87%	5.70%	5.37%
Federal & State Income Tax	4,391	19,026	(20,672)	23,964	(13,166)				13,045	7,686
% of Revenues	0.90%	4.12%	(4.53%)	4.19%	(1.99%)				1.33%	0.74%
Deferred FIT & SIT				8,495	58,764					1,962
% of Revenues				1.48%	8.86%					0.19%
Utility Operating Expenses	444,445	446,160	459,963	527,798	578,959	617,689	685,336	809,548	915,683	961,310
% of Revenues	91.51%	96.53%	100.81%	92.24%	87.30%	95.74%	105.65%	123.05%	93.40%	92.90%
Gains (Losses) Disposal of Utility Property	(1,952)				(1,635)					
Net Utility Operating Income	\$39,288	\$16,036	(\$3,696)	\$44,427	\$82,555	\$27,502	(\$36,658)	(\$151,640)	\$64,716	\$73,487
% of Revenues	8.09%	3.47%	(.81%)	7.76%	12.45%	4.26%	(5.65%)	(23.05%)	6.60%	7.10%
Non-operating Income										
Non-operating Expense										
Interest Expense										
Net Income	\$39,288	\$16,036	(\$3,696)	\$44,427	\$82,555	\$27,502	(\$36,658)	(\$151,640)	\$64,716	\$73,487

South Haven Sewer Works , Inc.
Net Income Comparison
For The Years Ended

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Operating Revenues	\$1,131,091	\$1,602,370	\$1,663,056	\$2,092,495	\$2,206,158	\$2,203,628	\$2,211,064	2,206,986	2,455,181	2,689,650
Operating & Maintenance Expense	995,872	1,135,859	1,381,710	1,352,557	1,437,461	1,174,775	1,331,655	1,452,786	1,722,973	1,871,330
% of Revenues	88.05%	70.89%	83.08%	64.64%	65.16%	53.31%	60.23%	65.83%	70.18%	69.58%
Depreciation & Amortization	34,437	78,557	129,311	241,859	194,686	228,538	261,438	236,207	196,515	211,480
% of Revenues	3.04%	4.90%	7.78%	11.56%	8.82%	10.37%	11.82%	10.70%	8.00%	7.86%
Other Taxes Other Than Income	47,215	60,417	145,797	141,167	184,177	162,498	131,835	114,407	167,697	80,686
% of Revenues	4.17%	3.77%	8.77%	6.75%	8.35%	7.37%	5.96%	5.18%	6.83%	3.00%
Federal & State Income Tax		15,315	(15,315)							
% of Revenues		0.96%	(.92%)							
Deferred FIT & SIT	8,538	18,172	(60,821)	13,495	67,670	89,001	50,468	(34,096)	(161,073)	21,187
% of Revenues	0.75%	1.13%	(3.66%)	0.64%	3.07%	4.04%	2.28%	(1.54%)	(6.56%)	0.79%
Utility Operating Expenses	1,086,062	1,308,320	1,580,682	1,749,078	1,883,994	1,654,812	1,775,396	1,769,304	1,926,112	2,184,683
% of Revenues	96.02%	81.65%	95.05%	83.59%	85.40%	75.09%	80.30%	80.17%	78.45%	81.23%
Gains (Losses) Disposal of Utility Property			(358)	3,632						
Net Utility Operating Income	\$45,029	\$294,050	\$82,016	\$347,049	\$322,164	\$548,816	\$435,669	\$437,682	\$529,069	\$504,967
% of Revenues	3.98%	18.35%	4.93%	16.59%	14.60%	24.91%	19.70%	19.83%	21.55%	18.77%
Non-operating Income			5,142	34,531	83,415	36,671	36,669	38,612	37,035	101,397
Non-operating Expense		966	945	281	138	26,649	29,658	461	250,407	99,286
Interest Expense		152,440	335,569	325,709	344,063	324,626	306,119	287,178	230,315	404,965
Net Income	\$45,029	\$140,644	(\$249,356)	\$55,590	\$61,378	\$234,212	\$136,560	\$188,655	\$85,382	\$102,113

South Haven Sewer Works , Inc.
Net Income Comparison
For The Years Ended

	2004	2005	2006	Mean 1994-2006	Mean 1984-1993	Mean 1984-2003
Operating Revenues	2,846,313	\$3,045,969	\$3,243,685	\$2,520,113	\$660,650	\$1,424,499
Operating & Maintenance Expense	1,980,307	1,885,609	2,053,956	1,626,341	540,300	1,011,442
% of Revenues	69.57%	61.91%	63.32%	64.53%	81.78%	71.00%
Depreciation & Amortization	230,452	276,260	282,186	235,962	49,410	120,837
% of Revenues	8.10%	9.07%	8.70%	9.36%	7.48%	8.48%
Other Taxes Other Than Income	153,121	158,024	172,466	146,608	44,629	87,396
% of Revenues	5.38%	5.19%	5.32%	5.82%	6.76%	6.14%
Federal & State Income Tax					4,896	2,856
% of Revenues						
Deferred FIT & SIT	84,189	118,801	108,115	35,776	23,074	11,854
% of Revenues	2.96%	3.90%	3.33%	1.42%	3.49%	0.83%
Utility Operating Expenses	2,448,069	2,438,694	2,616,723	2,044,687	662,310	1,234,385
% of Revenues	86.01%	80.06%	80.67%	81.13%	100.25%	86.65%
Gains (Losses) Disposal of Utility Property				3,632	(1,794)	(78)
Net Utility Operating Income	\$398,244	\$607,275	\$626,961	\$479,058	(\$3,454)	\$190,036
% of Revenues	13.99%	19.94%	19.33%	16.05%	(.52%)	13.34%
Non-operating Income	32,164	13,094	10,401	42,399		45,071
Non-operating Expense	821	24,340	4,369	43,641		40,961
Interest Expense	233,954	330,293	367,475	315,470		294,494
Net Income	\$195,634	\$265,736	\$265,518	\$162,347	\$28,474	\$34,122

STATISTICS FOR SIC CODE 494

Water Supply

This Industry Comprises 11 Companies

Data Updated Through September 2006

Industry Description

Establishments primarily engaged in distributing water for sale for domestic, commercial, and industrial use.

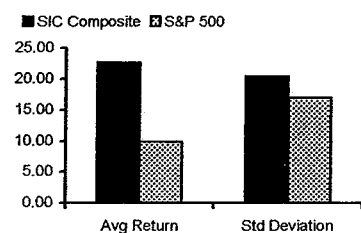
Sales (million\$)

Total	1,664
Average	151.3
Three Largest Companies	
AQUA AMERICA INC	496.8
CALIFORNIA WATER SERVICE GP	320.7
AMERICAN STATES WATER CO	236.2
Three Smallest Companies	
YORK WATER CO	26.8
PENNICHUCK CORP	23.8
BIW LTD	9.1

Total Capital (million\$)

Total	8,200
Average	745.4
Three Largest Companies	
AQUA AMERICA INC	3,935.7
CALIFORNIA WATER SERVICE GP	958.5
AMERICAN STATES WATER CO	945.6
Three Smallest Companies	
ARTESIAN RESOURCES -CL A	213.8
PENNICHUCK CORP	119.5
BIW LTD	40.5

SIC vs. S&P 500 for Last 10 Years (%)



Number of Companies & Total Capital (billion\$)

S&P Debt Rating	Large Cap	Mid Cap	Low Cap	Micro Cap	Totals
AAA, AA, A	0	0	2	3	5 (companies)
	0.0	0.0	1.9	0.9	2.8 (capital)
BBB	0	0	0	0	0
	0.0	0.0	0.0	0.0	0.0
BB, B, CCC, CC, D	0	0	0	0	0
	0.0	0.0	0.0	0.0	0.0
Not Rated	0	1	0	5	6
	0.0	3.9	0.0	1.5	5.4
Totals	0	1	2	8	11
	0.0	3.9	1.9	2.4	8.2

Annualized Statistics for Last 10 Years (%)

	Avg Return	Std Deviation
S&P 500	9.90	17.01
SIC Composite	22.60	20.46
Large Composite	22.29	26.60
Small Composite	22.12	24.44

Compound Annual Equity Return (%)

	5 Years	10 Years
75th Percentile	13.98	16.92
Median	10.54	14.90
25th Percentile	5.30	13.14
SIC Composite	15.19	20.93
Large Composite	14.81	19.53
Small Composite	17.01	19.82

Sales, Income & Market Capitalization (billion\$)

	Sales	Operating Income	Net Income	Equity Capital	Debt Capital
Current Yr.	1.7	0.6	0.2	5.9	2.3
Last Yr.	1.6	0.5	0.2	6.6	2.1
2 Yrs. Ago	1.4	0.5	0.2	4.2	2.0
3 Yrs. Ago	1.3	0.5	0.2	3.7	1.9
4 Yrs. Ago	1.2	0.4	0.1	3.1	1.7

Growth Over Last 5 Years (%)

	Net Sales	Operating Income	Net Income
Median	7.72	8.35	8.16
SIC Composite	8.58	8.44	9.06
Large Composite	8.39	9.00	9.80
Small Composite	5.03	1.19	-3.12

Capital Structure Ratios (%)

	Debt/Total Capital	Debt/MV Equity
	Latest 5-Year Avg	Latest 5-Year Avg
Median	31.31 35.03	45.58 53.91
SIC Composite	28.33 31.31	39.53 45.58
Large Composite	27.68 31.10	38.27 45.14
Small Composite	27.39 26.67	37.72 36.37

Distribution of Sales & Total Capital (million\$)

	Distribution of Sales		Total Capital	
	Latest	5-Year Avg	Latest	5-Year Avg
90th Percentile	320.7	284.7	958.5	803.0
75th Percentile	219.7	189.4	818.9	604.7
Median	74.6	66.3	361.7	299.2
25th Percentile	36.0	30.2	235.7	178.5
10th Percentile	23.8	21.8	119.5	100.6

Margins (%)

	Operating Margin		Net Margin		Asset Turnover		Return on Inv. Cap.		Return on Assets		Return on Equity	
	Latest	5-Year Avg	Latest	5-Year Avg	Latest	5-Year Avg	Latest	5-Year Avg	Latest	5-Year Avg	Latest	5-Year Avg
Median	33.48	32.64	11.33	11.37	23.69	25.07	3.48	3.79	2.69	2.90	3.79	4.84
SIC Composite	36.17	35.62	12.14	11.89	25.78	26.65	4.08	4.06	3.13	3.17	3.44	3.79
Large Composite	40.20	39.34	13.77	12.92	24.52	25.29	4.30	4.05	3.38	3.27	3.44	3.65
Small Composite	42.76	44.59	11.69	16.00	19.02	20.24	2.79	4.25	2.22	3.24	2.30	3.59

Equity Valuation Ratios (Multiples)

	Price/Earnings		Market/Book		Price/Sales		Price/Cash Flow		Price/Operating Income		Dividend Yield (% of Price)	
	Latest	5-Year Avg	Latest	5-Year Avg	Latest	5-Year Avg	Latest	5-Year Avg	Latest	5-Year Avg	Latest	5-Year Avg
Median	26.38	20.67	2.28	1.82	3.00	2.53	NMF	NMF	9.44	7.56	2.94	3.18
SIC Composite	29.10	21.85	2.24	2.08	3.53	3.13	NMF	NMF	9.76	8.79	2.17	2.60
Large Composite	29.10	21.64	2.40	2.21	4.01	3.54	NMF	NMF	9.97	8.99	2.02	2.49
Small Composite	43.51	33.08	2.24	2.08	5.08	4.46	NMF	NMF	11.89	10.01	2.83	3.08

Growth Rates (%)

Cost of Equity Capital (%)

Weighted Average Cost of Capital (%)

Levered Betas

Unlevered Betas

	Analysts' Estimate	CAPM	3-Factor	Discounted Cash Flow	CAPM	3-Factor	Discounted Cash Flow	Beta	Adjusted Beta	Adjusted Beta
		CAPM + Size Prem	Fama-French	1-Stage 3-Stage	CAPM + Size Prem	Fama-French	1-Stage 3-Stage			
Median	8.96	7.10	11.05	8.69 12.62	6.81	9.29	7.85 10.52	0.31	0.32	0.22
SIC Composite	8.96	7.95	9.76	7.15 9.24	7.51	8.81	6.93 8.44	0.34	0.44	0.35
Large Composite	9.20	7.90	8.92	6.26 9.22	7.49	8.23	6.30 8.44	0.28	0.43	0.35
Small Composite	9.75	8.29	12.24	8.04 9.29	7.66	10.55	7.48 8.40	0.37	0.49	0.39

Cost of Capital Resources at <http://global.morningstar.com/US/CofCResources>

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EXHIBIT ELB-2
SCHEDULE 14
PAGE 1 OF 1

South Haven Sewer Works, Inc.
Hypothetical Example of the Misrepresentation Of
DCF Model Return Rate To Book Value
When Market Value Is Greater Or Less Than Book Value

Line No.	Description	Column A	Column B	Column C
		Market Value	Book Value With Market To Book Ratio of 2.21 to 1	Book Value With Market To Book Ratio of .88 to 1
1	Per Share Value	\$22.04	\$9.04	\$25.00
2	DCF Model Cost Rate (a)	8.920%	8.92%	8.92%
3	Return Value In Dollars	\$1.966	\$0.806	\$2.230
4	Dividends (b)	\$0.703	\$0.703	\$0.703
5	Growth Value In Dollars	\$1.263	\$0.103	\$1.527
6	Return Cost Rate On Market	8.920%	3.659%	10.118%
7	Rate of Growth On Market Value	5.730%	0.469%	6.928%

(a) Includes Forward Dividend Yield of 3.19%

(b) 3.19% yield times \$22.04=\$0.703

(c) \$1.0966/\$22.04=4.975%

(d) \$2.543/\$22.00=11.557%

(e) The actual rate of growth when the DCF cost rate is applied to book value

(return of dollars of \$1.095 less dividends of \$0.702=\$0.393 growth dollars/Market Value of \$22.00=1.785%)

(f) The actual rate of growth when the DCF cost rate is applied to book value

(return of dollars of \$2.543 less dividends of \$0.702 = \$1.841 growth dollars /Market Value of \$22.00=8.367%)

**South Haven Sewer Works, Inc.
Proxy Group
Market To Book Ratios**

	1/06	2/06	3/06	4/06	5/06	6/06	7/06	8/06	9/06	10/06	11/06	12/06	Total
American. States Water Co.	202	209	230	237	240	211	211	230	235	249	233	230	226
Aqua America, Inc. formerly Philadelphia Suburban	458	463	436	408	358	345	345	343	333	358	363	345	380
Artesian Resources	208	206	215	221	219	205	205	310	199	196	204	196	215
California Water Service Company	250	261	264	265	244	217	217	235	244	239	259	219	243
Connecticut Water Service Co.	211	217	216	229	213	180	180	202	200	193	192	247	207
Middlesex Water Company	220	221	214	215	230	203	203	239	221	222	215	196	217
Pennichuck	197	222	216	215	195	183	183	180	170	182	187	216	196
SJW Corporation	220	236	240	222	211	211	211	262	288	307	315	316	253
Southwest Water Company	234	250	241	237	203	170	170	203	196	199	211	193	209
York Water Company	366	368	367	367	385	340	340	362	261	392	378	355	357
Arithmetic Mean	257	265	264	262	250	227	227	257	235	254	256	251	250
Weighted Arithmetic Mean	39	37	34	30	26	20	17	16	12	10	7	3	252
Geometric Mean	247	256	256	255	243	220	220	250	230	245	248	245	244
Weighted Geometric Mean	38	36	33	29	25	20	17	16	12	9	6	3	245
High	458	463	436	408	385	345	345	362	333	392	378	355	380
Weighted High	70	65	56	47	39	31	27	23	17	15	10	5	405
Low	197	206	214	215	195	170	170	180	170	182	187	193	196
Weighted Low	30	29	27	25	20	15	13	12	9	7	5	2	194

South Haven Sewer Works, Inc.
What Should DCF Cost Rate
If Proxy Group Market Capitalization is Considered

Line No.	Description	Capitalization Amount Col. A	Percent of Total Col. B	Cost Col. C	Weighted Cost Col. D
1	Long Term Debt Refinance - 20 Yr.	3,742,665	39.67%	6.50%	2.579%
2	Long Term Debt Refinance 20 Yr.	1,278,638	13.55%	7.95%	1.078%
3	Long Term Debt Refinance 20 Yr.	128,450	1.36%	7.98%	0.109%
4	2004 Ford Explorer- 5 Yr.	21,604	0.23%	0.02%	0.000%
5	2007 Ford Ranger - 5 yr.	18,580	0.20%	4.90%	0.010%
6	Common Equity at DCF Rate	3,617,387	38.35%	10.58%	4.057%
7	Deferred Taxes	513,679	5.45%	0.00%	0.000%
8	Customer Deposits	112,742	1.20%	6.00%	0.072%
9	Sub-totals	\$9,433,746	100.00%		7.903%
10	Long Term Debt Refinance - 20 Yr.	3,742,665	26.07%	6.50%	1.695%
11	Long Term Debt Refinance 20 Yr.	1,278,638	8.91%	7.95%	0.708%
12	Long Term Debt Refinance 20 Yr.	128,450	0.89%	7.98%	0.071%
13	2004 Ford Explorer	21,604	0.15%	0.02%	0.000%
14	2007 Ford Ranger - 5 yr.	18,580	0.13%	4.90%	0.006%
15	Common Equity	9,050,100	63.05%	10.58%	6.671%
16	Deferred Taxes	774	0.01%	0.00%	0.000%
17	Customer Deposits	112,742	0.79%	6.00%	0.047%
18	Cost of Capital at Market Capitalization	\$14,353,553	100.00%		9.199%
19	Cost of Capital at Book Capitalization				7.903%
20	Understatement of Cost of Equity				1.296%

**What Book Cost of Equity Would Have To Be
If Based Upon Market Rate**

21	Long Term Debt Refinance CoBank- 20 Yr.	3,742,665	40.22%	6.50%	2.614%
22	Long Term Debt Refinance CoBank- 7 Yr.	1,278,638	13.74%	7.95%	1.092%
23	2004 Ford Explorer	21,604	0.23%	0.02%	0.000%
24	2007 Ford Ranger - 5 yr.	18,580	0.20%	4.90%	0.010%
25	Common Equity	3,617,387	38.87%	13.915%	5.409%
26	Deferred Taxes	513,679	5.52%	0.00%	0.000%
27	Customer Deposits	112,742	1.21%	6.00%	0.073%
		9,305,296	100.00%		9.199%

EXHIBIT ELB-3

103 Broadway
Chesteron, Indiana 46304-2404
219-926-2131



May 21, 2003

Mr. David Saylor
South Haven Sewer Works, Inc.
816 N. 360 W.
Valparaiso, IN 46383

Dear Mr. Saylor:

Centier Bank is pleased to commit the following financing package for South Haven Sewer Works (SHSW). The terms and conditions are as follows:

Loan Amounts:

Loan #1 \$4,000,000.00 non-revolving draw note, amortized over 20 years. Payments will be calculated on an annual basis, with draws occurring during the year.

Loan #2 \$1,000,000.00, seven (7) year term loan.

Interest Rates:

Loan #1 The interest rate will be calculated at 3.00% over the five (5) year treasury constant maturity index, with an initial rate of 6.5% for the first five (5) years. The rate will adjust every five (5) years at the same index and spread.

Loan #2 Interest will be calculated at the Northern Trust Bank prime rate plus one (1) percent floating.

Loan Purpose: The loan proceeds will be used to payoff existing Centier Bank debt, Co-Bank debt, equipment purchases, infrastructure expenditures and improvements, along with an E.P.A. fine of up to \$250,000.00.

Loan Security

& Collateral:

Both loans will be cross collateralized and secured with the following assets and capital stock of South Haven Sewer Works and Reliable Development.

- 1) 1st real estate mortgage on the land and improvements that the sewer plant occupies
- 2) 1st real estate mortgage on the 72 acres owned by David & Karen Saylor.
- 3) 2nd real estate mortgage on property at 1035 N. 550 E., Westville, IN.
- 4) 2nd real estate mortgage on the Glencove Apartments.
- 5) 1st real estate mortgage on commercial lots located in front of the Fitness Barn and next to the Dairy Queen on Highway 6.

Chesteron • Crown Point • Ellettsville • Griffith • Highland • Hobart • Lakes of the Four Seasons
Lawrence • Merrillville • Portage • Schererville • South Haven • Valparaiso • Whiting

- 6) Security agreement on all equipment and accounts of SHSW.
- 7) Assignment of a Centier debt reserve fund, totaling \$200,000.00.
- 8) Assignment of all capital stock of South Haven Sewer Works.
- 9) Assignment of \$1,000,000.00 life insurance on David Saylor.

Guarantees: Both loans will be jointly and severally guaranteed by David & Karen Saylor.

Expenses: South Haven Sewer Works will be responsible for all closing expenses of this transaction. These will include legal expenses, business valuation expenses, appraisals, surveys, title work, recording fees and a loan origination fee of \$37,500.00.

- Other Terms:**
- 1) Prior to closing, a business valuation of South Haven Sewer Works will be performed by an acceptable 3rd party.
 - 2) Prior to closing, we will receive absolute verification of the EPA fine not exceeding \$250,000.00.
 - 3) The establishment of a debt reserve fund in a Centier account, with an initial balance of at least \$150,000.00, with increases of at least \$4,000.00 per month, until the balance reaches \$200,000.00.
 - 4) Prior to closing, all of South Haven Sewer Works legal issues are resolved to the satisfaction of Centier Bank's legal counsel.
 - 5) We will require current appraisals on all real estate property pledged as collateral.
 - 6) Centier Bank will be named mortgagee and loss payee on all pledged collateral.

**Financial
Covenants:**

- 1) South Haven Sewer Works cannot borrow or incur new debt or capital leases in excess of \$50,000.00 without the written consent of Centier Bank.
- 2) That South Haven Sewer Works will maintain a minimum debt service coverage ratio of 1.25 times total debt service. South Haven Sewer Works will seek rate relief if the debt service coverage ratio falls below 1.50. Debt service coverage is defined as net income after taxes plus interest expense plus depreciation and amortization, divided by annualized debt payments, including the funding of the debt reserve fund.
- 3) South Haven Sewer Works will submit an annual audited financial statement along with the federal tax return.
- 4) South Haven Sewer Works will submit quarterly internally prepared financial statements.
- 5) Reliable Development Corp. will submit an annual tax return.
- 6) Utility Services Corp. will submit an annual tax return.
- 7) David and Karen Saylor will submit an annual personal financial statement and personal tax return.

Thank you for allowing Centier Bank to be of service. This commitment is valid for 45 days from its date. Please sign below, hereby accepting the above terms and conditions.

Sincerely,
Centier Bank

Kent J. Mishler
Vice President

103 Broadway
Chesterton, Indiana 46304-2464
219-926-2131



May 21, 2003

Mr. David Saylor
South Haven Sewer Works, Inc.
816 N. 360 W.
Valparaiso, IN 46383

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Cause XXXXX
Exhibit ELB-1
Schedule 2

- 6) Security agreement on all equipment and accounts of SHSW.
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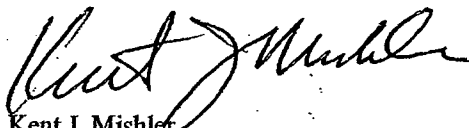
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 - 6) Centier Bank will be named mortgagee and loss payee on all pledged collateral.

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- 7) David and Karen Saylor will submit an annual personal financial statement and personal tax return.


Thank you for allowing Centier Bank to be of service. This commitment is valid for 45 days from its date. Please sign below, hereby accepting the above terms and conditions.

Sincerely,
Centier Bank


Kent J. Mishler
Vice President

Accepted this 29th day of May 2003.

South Haven Sewer Works, Inc.

By: David Saylor, President 


Reliable Development Corp.

By: David Saylor, President 

Utility Services Corp.

By: David Saylor, President 

David Saylor

By: David Saylor, Personally 

Karen Saylor

By: Karen Saylor, Personally 

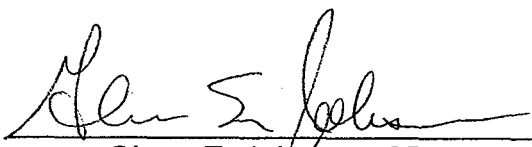
EXHIBIT ELB-4

AFFIDAVIT

We hereby affirm that the following occurred:

One sealed bid was received from Utility Service Corp. on Friday before 4:30 P.M., February 2, 2007. This bid was opened by Edward L. Beatty for laboratory services for South Haven Sewer Works, Inc. on Monday February 5, 2007.

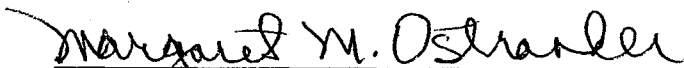
Witnessed by:



Glenn E. Johnson, CPA and
South Haven Sewer Works, Inc Outside Auditor

Sworn before me this date February 7, 2007.

My commission expires Aug 16, 2012.



Margaret M. Ostrander

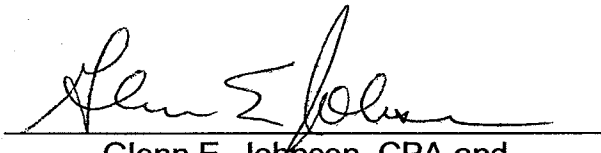
EXHIBIT ELB-5

AFFIDAVIT

We hereby affirm that the following occurred:

Two sealed bids were received before 4:30 P.M., Friday March 2, 2007 for wastewater operations services for South Haven Sewer Works, Inc. One of the bids received was from Midwest Environmental Management Services, LLC and the other bid received was from Utility Services Corp. The bids were opened by Theodore A. Rabick and Charles Nathan on Monday March 5, 2007.

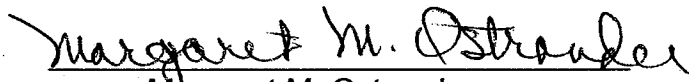
Witnessed by:



Glenn E. Johnson, CPA and
South Haven Sewer Works, Inc Outside Auditor

Sworn before me this date May 25, 2007

My commission expires Aug 16, 2012.


Margaret M. Ostrander